

**FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.**

[PRICE 6D.]

out to nearly all the mines in Devon and Cornwall, enables him to become thoroughly acquainted with their respective merits.—Mr. VATCHER has at his command, at all times, several practical and experienced agents, so that if any inspection is required, the same can be made without delay.



## Transactions of Scientific Bodies.

## MEETINGS DURING THE READING WEEK.

THIS DAY	Medical—33, George-street, Hanover-square	5 P.M.
	Asiatic—5, New Burlington-street	2 P.M.
	Chemical—142, Strand	8 P.M.
MONDAY	Entomological—17, Old Bond-street	8 P.M.
	British Architects—16, Grosvenor-street	8 P.M.
TUESDAY	Medical and Chirurgical—53, Berners-street	4 P.M.
	Civil Engineers—25, Great George-street	8 P.M.
	Zoological—11, Hanover-square	9 P.M.
WEDNESDAY	Syriac—Egyptian—71, Mortimer-street, Cavendish-square	7 P.M.
	Geological—Somerset-house	8 P.M.
	London Institution—Finsbury-circus	7 P.M.
	Graphic—Thatched-house Tavern	8 P.M.
	Pharmaceutical—17, Bloomsbury-square	9 P.M.
	Literary Fund—73, Great Russell-street	2 P.M.
THURSDAY	Royal—Somerset-house	8 P.M.
	Antiquaries—Somerset-house	8 P.M.
	Royal Society of Literature—4, St. Martin's-place	4 P.M.
FRIDAY	Royal Institution—Albemarle-street	8 P.M.
	Philological—London Library, 12, St. James's-square	8 P.M.
	Astronomical—Somerset-house	3 P.M.
SATURDAY	Royal Botanic—Inner Circle, Regent's-park	3 P.M.

## GEOLOGICAL SOCIETY.

March 26.—W. HOPKINS, Esq., (president), in the chair.

The following communications were read:—

1. On the Till of Caithness, by J. CLEGG, Esq.
2. On the Erratic Tertiaries of Cheshire, by J. TRIMMER, Esq., F.G.S.

After referring to various papers, by himself and others, for proofs of the existence of a terrestrial surface on the western as well as the eastern side of the island, immediately before the glacial submergence, and for descriptions of the erratic deposits along the western coast, from the Mersey to Harlech, the author showed that these deposits are of great thickness in the interior of Lancashire and Cheshire, where the presence of marine shells and of granitic detritus is well known; and that the division, which he has established elsewhere, of upper erratics (gravel and sand) and lower erratics (till, or boulder clay), are persistent up to the edge of the Penine chain, with some slight exceptional modification. He remarked, also, that the variations of soil in the district, as well as in other districts which he has examined, are dependent on the extent to which the erratic tertiaries have been denuded, and on the depth and composition of an unconformable deposit thrown down on their denuded surface. The paper concluded with some remarks on the scratched boulders of the till, and referred to the Polar voyages for descriptions of the marine and atmospheric action of an arctic climate, illustrative of the formation of such detritus, and of the imbedding of it in the peculiar littoral deposits of an arctic sea.

3. On the Sequence of Events during the Pleistocene or Glacial Period, by Professor RAMSAY, F.G.S.

[We shall publish this paper in next week's Mining Journal.]

Papers to be read on the 9th April:—1. On the Basement Beds of the Inferior Oolite in Gloucestershire, by the Rev. P. B. Brodie, F.G.S.—2. On the Physical Geography of North America, as connected with its Geological Structure, by Sir J. Richardson.—3. On the Erratics of Canada, by Dr. Bigsby, F.G.S.

## INSTITUTION OF CIVIL ENGINEERS.

APRIL 1.—WILLIAM CURTIS, Esq., (president), in the chair.

The first paper read was "A Description of a Raft, or Float, used for Submarine Blasting, on the Works of the Hartlepool West Harbour and Dock," by Mr. T. Casebourne, M. Inst. C.E.

This machine was contrived in consequence of the clay, or marl, forming the bed of the channel into the harbour, being so hard, at a certain depth, that the ordinary dredging machine was found to have little or no effect, owing to its want of stability. The new machine consisted of a platform, or raft, supported by four legs, on each of which was fastened a rack, working into a pinion on the deck, so that the platform could be raised or lowered at pleasure. The working level of the ebb tide was about 8 feet above the level of the ground, in which position it remained for about five hours, or five hours and a half, until the tide flowed again; during this time two sets of boring-irons were in use, working through wooden boxes, or tubes, which made holes in the clay 4 inches in diameter, and of the required depth, for receiving a cartridge containing 8 to 10 lbs. of powder, to which one of Bickford's fuzes was attached; the hole was then carefully tamped, and when the tide rose to the level of the platform or raft, the fuzes were lighted, and the raft was floated away to some distance. The cost of this apparatus, complete, was stated to have been 100l.

The next paper read was "A Description of the Lockwood Viaduct, on the Huddersfield and Sheffield Railway," by Mr. J. Hawkshaw, M. Inst. C.E. This viaduct was described as consisting of 32 semi-circular arches, each 30 feet span, one oblique arch of 40-feet span, and another oblique arch 70-feet span, the latter having a versed sine of only 7 feet. The piers were 4 ft. 6 in. thick at the springing, and had a batter of one-sixth of an inch to the top. The total length was 1428 ft., and the height from the foundations to the top of the parapet was 136 ft.

With the exception of the stone ribs of the flat oblique arch, the string course and the coping, which were of ashlar, the whole structure, piers, arches, and parapet, was built of "sneaked rubble masonry," composed of stones of all sizes, both as to length, thickness, and width of bed, laid in a thick bed of stiff mortar; but the beds and joints were roughly scabbled, so as to remove any projections, which might cause the stones to rock, or to act like a wedge on the course beneath, and the beds were laid as nearly horizontal, and the joints as nearly vertical as the nature of the stone would permit. The largest stones were so placed as to form a perfect bond for those of smaller dimensions, a sufficient quantity of "throughs" being also used, and the whole work so built that the workmanship of the inside and outside of the walls was of uniform quality, both as to labour and material. This description of masonry was only about one-half the price of ashlar, and though not, of course, capable of bearing the same incumbent weight as could be supported by solid ashlar, it was considered superior, when carefully executed, to a thin facing of ashlar, with a hearing of rubble, a mode of construction very frequently adopted.

The total cost of this viaduct, including the excavation for the foundations, the scaffolding, the centering, and every other expense connected with its erection was 33,000l., being at the rate of 18s. 7d. per cubic yard of masonry.

The Hall Bottom Viaduct, on the West Riding Union Railway, was another instance of a similar kind of construction, the only difference being that the piers had a greater taper, and to reduce the increased quantity of masonry which this plan involved, flues, or hollow spaces, were left in the piers, the sides of which followed the line of the face of the pier, so that a uniform thickness of masonry was preserved throughout.

Two other viaducts, likewise designed by the author, but built of a different description of masonry, were also alluded to. The first, the Peniston Viaduct, on the Huddersfield and Sheffield Railway, was constructed of what was termed "block in course" work, which was a kind of rough-faced ashlar, the stones averaging about 12 inches in thickness, and from 15 to 18 inches on the bed, backed with a hearing of rubble masonry. The average cost of this kind of masonry, which required great care in the execution, was about 21s. per cubic yard. The other viaduct was over the River Medlock, near Manchester, and differed from either of the others, inasmuch as the piers were composed entirely of ashlar, laid header and stretcher alternately, without any rubble filling, or hearing. The spaces between the external walls were left vacant; but, as each header extended completely across the breadth of the pier, and the courses of masonry were alternated, the spaces were not continuous, as in the Hall Bottom Viaduct. The cubic contents of masonry in this work was proportionally much less than in either of the others, but the cost was far greater, being at the rate of 27s. 6d. per cubic yard.

At the monthly ballot the following candidates were elected:—Mr. Eaton Hodgkinson, as honorary member; Messrs. R. Brodie and H. Hubbe, as members; and Messrs. T. B. Eddy, J. Hill, J. Sherriffs, G. W. Stevenson, C. Waring, and Lieut. W. D. A. R. Short, B.E., as Associates.

The following papers were announced to be read at the meeting of April 8th:—"Description of Two Bridges over the River Don, and Canal, &c., at Spotborough," by Mr. H. Carr, Assoc. Inst. C.E.; "On a Method of Computing the Quantity of Flood Water Passing over a Weir," by Mr. J. Leslie, M. Inst. C.E.; and "On the Nominal Horse-Power of Steam-Engines," by Commander Heath, of the Royal Navy.

ENGINEERING WORKS IN IRELAND.—The great swivel bridge at Lough Athalia, the largest of its kind ever built, is almost complete; the moving mass of nearly 200 tons will be turned by a simple hand-gearing. The bridge over the Shannon will be about 600 ft. in length, consisting of iron girder openings, 165 feet span, with a swivel bridge for navigation in the centre. The whole rests upon 12 cast-iron pillars sunk in the river, filled with masonry, and are now nearly ready to receive the super-structure.

The first manufactory for spinning by machinery in Austria has just been founded at a place called Eipel, on the frontier of Bohemia and Silesia.

PANORAMA FROM PORTSMOUTH TO PARIS.—On Tuesday evening last, at the South-west Literary Institution, Mr. J. Clarke exhibited a panorama of a tour from Portsmouth to Paris, for the purpose of visiting the Gallery of the Louvre. The panorama exhibited numerous highly-interesting views on the route, and finished with the interior of the large Gallery of the Louvre, with many copies from the most esteemed works of art with which this splendid building is furnished. The panorama is well executed, and is worthy of a visit if being on quite a novel plan.

## VAN DIEMEN'S LAND COMPANY.

The annual meeting of shareholders was held at the offices, Great Winchester-street, on Monday, the 31st March,

JOHN CATTLEY, Esq. (the governor), in the chair.

The SECRETARY read the report, of which the following is the substance:—The report referred, in the first place, to the special report made to the meeting of proprietors on the 26th of February last, in which the directors had recommended the entire giving up of their farming and other establishments, and depending in future only on the sale and letting of land, with a single agent to superintend the same, instead of their present staff of servants and dependants. In effecting this, they proposed to associate two other gentlemen with their present agent as counsellors and advisers. Reference was then made to the late engagement, now terminated, to take the tenants' produce at fixed prices. While that engagement existed, there were insuperable difficulties in attempting any material change in the plans of the company; but the tenants having now become purchasers of their respective sections, and being finally settled upon the same, the object of the company in maintaining their expensive establishments was in a great measure attained, and there was no longer any necessity to keep them up, at a certain annual loss. It was determined, in consequence, to sell the live and dead stock, and let the farms. It was only lately that any material progress had been made in the sales of land, up to 31st Dec., 1848, the amount received was only 380l., whereas, on the 31st Dec. 1849, it had increased to 2990l. 6s.; but a very small part of this was paid in cash, the remainder being by bills at long dates. It was stated that, up to the 31st August, 1850 there was land occupied, &c., as follows:—

	Occupied.	Cleared.
At Circular Head	4677	2023
At Emu Bay	2365	776
Together	7042	2799

The total population had increased during the year from 857 to 908 persons.

The land sold up to June, 1850, was—at Circular Head, 1799 acres, and at Emu Bay 1327 acres, generally at 3d. per acre; and in the townships of Stanley (Circular Head) and Burnie (Emu Bay) considerable sales had been made, at the average price of 20s. a section of a quarter acre in the former, and 10l. in the latter. The improvements in both places, during the past year, were very satisfactory, and at Stanley an hotel had been completed, built of stone, containing 30 rooms; also a brewery, with store and malt kiln attached. At Burnie there was also recently erected a convenient inn and brewery.

The chief agent further stated, in his address, that a steam communication would shortly be established with Melbourne, which he anticipated would be of the greatest importance to the colony, and cause it to increase much more rapidly. The inhabitants of Emu Bay had made an urgent appeal to the company, for aid in constructing a break-water or jetty, which, from the very exposed situation of the roadstead, seemed absolutely necessary for the protection of vessels while loading the produce of the tenants. This produce, it was stated, would this year require 1300 tons of shipping. The inhabitants, to the number of 26, had subscribed various sums towards constructing the jetty, amounting in all to 525l. The directors proposed to aid the undertaking by a grant of 200l., regretting that the circumstances of the company did not justify their proposing a larger sum, which proposition was agreed to. The estimate for constructing a work to afford adequate protection amounted to 1500l. The net amount received in London for wool sold during the past year was 1057l. 11s. The sales of live stock in the colony during the year 1849 amounted to 1764l. 17s. 2d.

The CHAIRMAN said they had just heard the report, and he begged to say that the directors, in that document, had stated everything which they thought would be of interest to the proprietors. He could only regret that it was not more satisfactory. They would recollect that at the last special meeting a committee was formed, but as the directors had not yet been favoured with a report from that committee, he apprehended they were not yet prepared. He saw there one gentleman who had taken a very active part in it, who would, perhaps, have something to say on the subject.

Mr. BROOKSBANK said that he was the only one of the five gentlemen appointed on the committee now present. He had proposed a report, but as three had been appointed the quorum, he could do nothing with it; for if it were presented, it would only be an individual opinion. As regarded the committee, he might say that he was the only one who had attended the meetings; but it would not answer his purpose to waste his time and attention any longer, when the rest of the committee neglected their duties. (Hear, hear.)

Mr. HELME (a director) said it was no fault of the directors that they were not ready with their report. No sooner did he know that his brother was unwell, than he volunteered to take his place. He had only one interest in common with them all, and would be happy to co-operate for the purpose of this inquiry. (Hear, hear.)

Mr. BROOKSBANK was aware that Mr. Helme came forward in the most straightforward way to put himself in his brother's place; so that only two remained to draw up the report.

The CHAIRMAN: Mr. Richardson, who proposed the committee, is very ill. I think I may put the question to you whether, as far as your inquiries went, your report is satisfactory, as far as the accounts go?

Mr. BROOKSBANK: They seem to me to be very correctly kept (hear, hear); but the first thing would be to see if our money has been properly expended under the Charter. (Hear, hear.)

The CHAIRMAN was sorry they had not the report of the committee for this occasion.

Mr. HELME understood the report would be ready that day; and as the accounts would be published, he thought the proprietors would have all they required.

The CHAIRMAN wondered how those gentlemen who talked most should be the least ready to attend the committee's meetings. Mr. Brooksbank appeared to be punctual in his attendance; and he thought the proprietors were indebted to him for doing his part. (Hear, hear.) He could only say that it was the wish of the directors from the first that the committee should have every facility given them; and he hoped it would be admitted that they had not refused any information that was asked. (Hear, hear.) It had been suggested that he should give some kind of summary of these reports for the information of the public. All he could say was that, if the company itself up to this time had not been prosperous, it was satisfactory to know that the settlers on their lands had been exceedingly prosperous. (Hear, hear.) He believed a more happy and prosperous population hardly ever existed. The last report from the clergyman was satisfactory in every respect. (Hear, hear.) The people were occupied in clearing the lands and opening communications with the more distant places, by which their traffic would become more extensive and profitable to the occupier of the company's lands. It was well known that the great losses of this company had arisen from taking the produce of the settlers at fixed prices, but the last of this produce had been lately sold; and the wheat realised no more than 4s. 9d. a bushel at Hobart Town. That would close this unfortunate agreement as to produce, and they must be very glad of it. They might now look for better times—at all events, they would get rid of this annual loss, besides dispensing with the expensive farming establishments of the company. Mr. Gibson was ordered to go on as quickly as possible in disposing of the company's stock, and before they again met he should be able, no doubt, to give them a satisfactory report on this subject. As to the land, he might say that the cleared and occupied was 4677 acres, and that cleared only 2023 acres; at Emu Bay the land occupied was 2365 acres, and that cleared 776 acres. It was something more at present—so that he might say that they had 10,000 acres occupied, and nearly 3000 acres cleared and yielding produce. (Hear, hear.)

A PROPRIETOR wished to know whether this 1l. would be the last call? The CHAIRMAN did hope that the last call would have been the final one, and there was much discussion about making this, but they found it could not be avoided. He certainly did expect that this would be the last call made on the proprietors. (Hear, hear.) The board had been considering whether it would not be more agreeable to the proprietors to make this call by two instalments of 10s. each, as one might not be required, if their remittances came from the colony. If the board could do with 10s., they might rely upon it that they would not require a pound; and it was this feeling that led the board to adopt this plan, so as to make the call fall as lightly as possible on the proprietors.

A PROPRIETOR said they had gone on with call after call, till many of their proprietors had been almost reduced to beggary, one of whom he knew to be so, and she was a poor woman keeping a school. He thought the time was come when those calls ought to be put an end to. (Hear, hear.)

The CHAIRMAN said the hon. proprietor must recollect that they were now getting rid of the causes of these unfortunate calls. (Hear, hear.) They had liabilities in the colony, one way or the other, to the extent of 10,000l. to liquidate. Their resources were 300l. balance at the bankers, 106l. at Circular Head, 735l. in bills receivable in hand, and 188l. debts outstanding. The bills drawn on the company and negotiated were something more than that amount. Of these bills receivable he might say that, although they were perfectly safe, they might not be regularly paid. This doubt had caused Mr. Gibson to draw on the company, but he had no doubt of this money being remitted back again from the colony. (Hear, hear.)

A PROPRIETOR asked if the directors had perfect confidence in Mr. Gibson? He meant in his management, as there was no doubt of his integrity. (Hear, hear.) He was told that the board meant to call on some of the respectable men of Hobart Town to assist Mr. Gibson. The CHAIRMAN said, the instructions to assist Mr. Gibson were now being prepared.

Mr. HAMMOND observed that he had been asked to become an auditor, but he could not do so, because he had not paid his last September call. His reason for refusing to do so was because he could get no explanation from Mr. Howell as to a sum of 2000l., which appeared as borrowed in one account, and the other did not show that it had been repaid, although it was so understood.

The SECRETARY explained this matter by saying that the balance brought over on the 1st Jan., 1849, was the actual balance at the bankers. It ought to have been larger, and about the amount as stated in the account made out by the late secretary on the date of the 31st Dec., 1848. The company did not, however, lose the difference, because it was afterwards recovered from Mr. Howell's friends. (Hear, hear.)

A PROPRIETOR asked how their accounts stood with Mr. Howell, the late secretary?—The CHAIRMAN replied that there was still about 700l. due. The directors and Mr. Howell's friends had subscribed to meet his deficiencies within that amount.

A PROPRIETOR asked if that balance would be recoverable?

The CHAIRMAN hoped that it would, as Mr. Howell had gone to California. (Laughter.) Since then he had written, through one of his friends, to know

how much still remained unpaid on his account, when he (the chairman) sent word back that he might safely remit 1000l. (Hear, hear, and laughter.)

A discussion took place in reference to the company granting 200l. towards the jetty to be erected at Emu Bay, when

The CHAIRMAN said it was only proposed to subscribe it when the jetty was actually made. The tenants had, at their first meeting, agreed to subscribe about 600l. for the same purpose. The erection of it would be of vast service to the settlers, and would increase the value of the land of the company.

A PROPRIETOR thought they ought not to grant this till the report of the committee should be presented.

A PROPRIETOR thought the 200l. might be awarded, as it would be conditional on the jetty being completed.—The report was then adopted unanimously.

The retiring directors, Edward Marshall, Esq., Robert Helme, Esq., and Valentine Knight, Esq., were re-elected unanimously. Henry Hooper, Esq., was also appointed a director.

Messrs. Hooper and Walker were appointed the auditors.

Mr. BROOKSBANK wished some one to be appointed in his place on the committee.—Mr. VALENTINE KNIGHT (a director) thought that Mr. Brooksbank should not retire till the committee made their report, for the appointment of that cast a slur on the conduct of the directors. (No, no.)

Mr. HAMMOND asked how many directors there were.

The CHAIRMAN replied that they were now reduced to nine, with the chairman and deputy chairman, which was the minimum.

A resolution for making another call of 10s. per share was agreed to unanimously. Two portions of shares were then submitted to forfeiture, the first of 55l., on which no payments were likely to be made, and the other of 61l. shares, which the directors expected would be redeemed.

This being all the business, a vote of thanks was passed to the chairman and directors, when the meeting separated.

## THE AMSTERDAM WATER-WORKS.—Exception has been taken to the pro-

spectus of the Amsterdam Water-Works Company, chiefly on the grounds that the parties to whom the corporate right of construction is conceded by the Dutch Government have to be remunerated somewhat liberally out of the money subscribed, and that the amount of the proposed capital is unnecessarily large; but upon a mature examination of the undertaking, as it is now presented to the public, we confess that we do not entertain these objections. The rights and interests of original concessionaires are always recognised on the continent. Their purchase, on account of the Amsterdam Water-Works Company, in the instance before us, is openly and even conspicuously pointed out in the prospectus; and it is only fair to conclude that the sum to be paid to them has been equitably assessed under the cognisance of the national authorities, by whom the affair is patronised. Indeed, there is every possible inducement for economy on the part of the Dutch Government, seeing that whilst the shareholders will undoubtedly invest their money in anticipation of permanently good dividends, the water must not be made too costly to the consumers; and that hence, besides the careful supervision of the directors, there will be the well-known caution and sagacity of the Dutch working to the same prudent end, whether as regards primary arrangements or the completion of the works. With respect to the proposed capital, these remarks will equally apply. In addition to them, we may observe that, as the prospectus states that "the nominal capital has been fixed at an amount which it is considered is larger than will ever be really required, in which case a portion of the instalments will not be called for," it is only reasonable to assume that Mr. Simpson, the talented and experienced hydraulic engineer, to whom the construction of the works is entirely confided, will exercise his own judgment upon the ornamental parts of the design, and avoid being made the medium of useless expenditure. As a rule, too, we think that the interests of shareholders are more safely entrusted to those who ask for a good margin, on a justly computed outlay, than to that "penny-wise-and-pound-foolish" class of people, who commence the operations of false economy by cutting down the estimates of practical men, or by "cooking" calculations, so as to make them ideally conformable to the hungry appetites of huge dividend-hunters; and looking, therefore, at the unquestionable, the notorious want of such an undertaking as the Amsterdam Water-Works, in the flourishing capital of Holland—at the Government authorisation of the plan—at the experience now attained in its prosecution—and at the official, scientific, and commercial status of the parties bringing it forward, we need not hesitate very cordially to wish it success.

INCREASING APPLICATION OF GAS.—We had an opportunity, on Monday, of inspecting several ingenious models, prepared by Mr. Defries, the gas engineer, for exhibition at the approaching World's Fair, and designed to show the process of manufacture of gas, with its means of application. Mr. Defries is a very indefatigable man, and one who has done more towards popularising the use of gas than any of his contemporaries. Having overcome all objections, by the tested correctness and economy of his dry meter, and extensively introduced them into every description of public and private building, he produced a gas bath, by which 45 gallons of water can be heated, from 50° to 100° Fahr., in less than six minutes, at a cost of but 2d. for gas. Then came his gas stove—an elaborate improvement on which was among the articles referred to; and certainly, for utility and completeness, it is an invention that the patentee may be proud of—and in which even the hitherto waste gas is brought into requisition—involving, as it does, the means of heating, broiling, boiling, roasting, steaming, ventilating, and, when required, the regular coal fire, to heat the apartment, or contravene the prejudices of the *employé*. An extensive apparatus on this principle, developing its full uses, is being manufactured for the Exhibition, where it will certainly prove an interesting feature. We also had an opportunity of inspecting a method of melting wax by steam, which is well worthy the attention of those requiring its use, for cleanliness and entire absence of danger. The chief invention, however, appears to be an excellent method of lighting, heating, and ventilating—one of which is constructed at 145, Regent-street, and is well worthy inspection. To Mr. Defries the several companies are undoubtedly greatly indebted for his many ingenious contrivances, in developing the uses to which gas can be applied, and of which, we may add, the public appear to testify full appreciation by the extent of his business—40,000 of the meters alone having, we believe, been manufactured.

MODEL IN CANNEL COAL.—A highly-finished model of the monument erected on Penser Hill to the memory of the late Earl of Durham, has been executed by Messrs. Waite and Howard, Newcastle, for the Exhibition. The scale is 1 inch to a foot. It presents a very high polish, being entirely formed of the "Cannel Coal" found in Mr. G. H. Ramsay's colliery at Newcastle. The workmanship exhibits an excellent combination of art and strength.

NEW LOCOMOTIVE ENGINE.—The first of the new engines, built by Messrs. Robert Stephenson and Co., for the South-Eastern Railway, to work their Great Exhibition traffic, ran an experimental trip on Monday from London to Folkestone. The engine, with a first and second-class carriage attached, conveying Mr. R. Stephenson, M.P., Mr. J. M. McGregor, Mr. P. W. Barlow, and Mr. J. Cudworth, left the London-bridge terminus at 12.15 p.m. No trial of speed could take place until the Red-hill Junction was passed, a Brighton train being in front; but from this point to Ashford the journey was performed, without stopping, at an average speed of 60 miles an hour. The trial was regarded as satisfactory, the engine running at the greatest velocity without oscillation. The engine is constructed on Crampton's patent. The inside cylinders are 15 in. in diameter, with a 22-in. stroke; the driving wheels 6 feet in diameter. Mr. Stephenson, it is said, expressed himself much pleased with the engine, and the speed at which the journey was performed.

CARBONIC ACID GAS ENGINE.—Prof. Saloman, of Harrodsburg, Kentucky, has successfully applied the entire power of carbonic acid gas as a substitute for steam in propelling machinery for every purpose. The power of this gas has long been known to chemists, but their inability to regulate and govern it has prevented its use as a propelling agent. Prof. Saloman claims to be able to control it with perfect safety; and that it will afford a power equal to steam in 1-50th of the space, and 1-100th part of the expense, dispensing with both furnaces and boilers. Experiments have recently been made in Cincinnati, which are said to be entirely satisfactory.—*American Paper*.

As the engineer of the Whitehaven and Furness Railway was boring between the termini of that railway and the Whitehaven Junction line, preparatory to commencing the tunnel, which is in future to connect the two lines, he came upon a seam of excellent coal, not less than 7 feet thick, and very little below the surface of the ground.

THE GOLD USED BY DENTISTS.—The public and the medical profession generally are not aware of a very fruitful source of disease which arises from the introduction into the mouths of many thousands of persons of metallic plates and other apparatus for the securing artificial teeth. These plates, &c., are nominally constructed of gold, but in point of fact, in innumerable instances, there is little or no gold used in the construction of them; silver gilt, or some still baser metal, is employed, which being acted upon by the acids of the stomach, produces a poison which insidiously undermines the health, causing cancer, and other diseases. The false delicacy of the sufferer, and his ignorance of what causes his complaint, prevent him from receiving such advice as would meet his case. This imposition on the public admits of a most simple remedy; it is merely compelling all persons who are employed in the trade or profession of making such plates, springs, &c., to have them stamped at the Goldsmiths' hall, and a standard enforced which would guarantee the security of those by whom they were required.

EFFECTUAL CURE OF A SEVERE COUGH WITH ASTHMA BY HOLLOWAY'S PILLS.—Mr. John Davies, of Lion-street, Milford, was afflicted for more than seven years with a most inveterate asthmatic cough, which several eminent surgeons, under whose care he had been at various times, could not relieve; he then resolved upon trying Holloway's pills, and fortunately he did, for this superior medicine has effected a perfect cure. The cough has ceased, the asthma is removed, and his respiration is as free as that of the healthiest person.—Old coughs, colds, wheezings on the chest, and shortness of breath, may soon be cured by Holloway's Pills.—Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.



## A Compendium of British Mining.

BY J. Y. WATSON, ESQ., F.G.S.

WEST CARADON COPPER MINE,  
NEAR LISKEARD.

This mine is situated in the parish of St. Cleer, and divided into 256 shares, 20l. per share paid up. Market value, 130l. Conducted on the Cost-book System. Purser, Edward Anson Crouch, Liskeard; agents, Capt. Dunstan, Taylor, and Reynolds. West Caradon in extent is 370 fathoms on the course of the lodes, and about 420 fathoms north and south, and consists of two sets, called Downhill and Menadue, held on leases for twenty-one years, from 1840, at 1-15th dues, the lords being Mrs. Fookes and Mr. F. Hendra.

The mine commenced working in March, 1840, and first made returns in 1841, from which period to the end of October, 1848, the copper ores sold have yielded 167,210l. 9s. 2d.; the outlay during the same time was 137,828l. 7s. 11d.—viz.: 89,025l. 10s. 2d. for labour, and 48,802l. 17s. 9d. for materials; whilst 33,344l. were divided as profit among the shareholders. The dividends paid to the shareholders since have been—

In 1849—15l. per share	£ 3,840 0 0
In 1850—7l. 10s. per share	1,920 0 0
In 1851—2l. 10s. per share (quarterly dividend)	640 0 0

In October, 1848, as above	£ 6,400 0 0
	33,344 0 0

Total ..... £39,744 0 0

In 1850, the dividends were 1920l. only, owing to damages paid to the Duchy of Cornwall for land destroyed, amounting to nearly 2000l., which sum was paid out of profits. West Caradon was the second mine worked in this district, South Caradon, to the east of it, having been discovered a few months previous. These two mines are situated on the extreme edges of two hills, a deep valley running between them; and on South Caradon proving so rich, the sett of West Caradon was obtained by other parties for a trifling sum, and has realised the large profits enumerated above. The adit level in West Caradon is 22 fms. from surface, and the deepest level about 150 fms. under the adit. Eight lodes in the sett have been found productive, and upon some of them of more recent discovery little has yet been done. The number of persons employed is about 505—viz.: 344 men, and 161 women and boys. The produce now sold is about 300 tons of ore per month, which at the present standard realises sufficient to give the shareholders a dividend of 2l. 10s. per share every alternate month, with a prospect, ere long, of a considerable augmentation. The machinery consists of four steam-engines, and the consumption of coals monthly for all purposes is about 90 tons.

South Caradon, the first and the richest mine of the district, was discovered about 16 years ago, and has divided about 64,000l. profit. I shall, however, give full particulars of this in a future Number, not having the correct statistics by me at the present moment. In this neighbourhood a great many mines have been tried, and given up; and Caradon Consols, Wheal Norris, and Wheal St. Cleer were once considered promising, and had large sums expended on them. Those still working are Gonamena, Craddock Moor, East Wheal Agar, and Caradon Copper (now called Trethevy): of this lot, although many thousands of pounds have been spent, Gonamena alone has returned any quantity of ore, the lodes in the others not having been proved deep enough. At Caradon United, just abandoned, upwards of 7000l. were expended without meeting with ore; many, however, think that some of the lodes opened upon deserve a further trial. To the east of this mine, called Tremar, has been put to work. These are all situated on the Caradon Hills, about three miles from the town of Liskeard, and where, previous to the discovery of South Caradon, no mine was worked, or even known to exist; and when it is considered that South and West Caradon alone have in the last twelve years paid in wages and for materials nearly 300,000l. in the neighbourhood, the advantages and the importance of mining adventure are apparent, at least to those who have the good fortune to live in their vicinity. At the present time, the mines around Liskeard cannot pay less than 70,000l. a year for wages and goods.

At Menheniot, near Liskeard, and not far distant from the Caradons, several new mines have been started upon the run of the lode of Trelawny and Mary Ann (described in last week's Journal), and of these the nearest to Trelawny is—

## WHEAL VENTON.

Held on lease for 21 years, from 1850, at 1-15th dues. In 1024 shares; 37. 15s. paid up—present price, 8l. Conducted on the Cost-book System. Committee of management in London, O. H. Smith, Esq., H. J. Blakely, Esq.; secretary, Mr. John Watson; manager at the mine, Capt. Osborn. Operations were commenced in June, 1850, and an engine of 24-inch cylinder has been erected, the shaft sunk 30 fms. deep, and the lode cut at that depth of a very favourable character.

## BUTTERDON

Adjoins Venton to the north, and is held on lease for 21 years, at 1-15th dues. Conducted on the Cost-book Principle; but without London management or check. Purser, Mr. John Philp, Liskeard. In 812 shares—price 6l. An engine has been erected here, the shaft sunk, and lode cut at about the same depth as in Venton.

## BANKRUPTCY OF RICHARD TREDINNICK, MINING AGENT.

The last examination of Mr. R. Tredinnick, late of Threadneedle-street, City, took place at the Bankruptcy Court on Saturday last, when Mr. Sydney appeared for the assignees, Mr. Lawrence for the bankrupt, and Mr. Linklater for the creditors (there are 51 of them in all). Mr. Nicholson, the official assignee, reported as follows:—

The balance-sheet commences from 1st Jan., 1850, ending in Feb., 1851, as follows:—	
Due to unsecured creditors	£4173 17 4
Total of other liabilities	4248 6 8
	£8422 4 0
The assets, good and doubtful	£2467 3 11
Furniture, and shares to assignees	807 3 10
Surplus property in hands of creditors	741 10 8
Bills, &c., held by creditors	261 11 0
	£4277 9 5
Showing deficiency of	£4144 14 7
To which add, capital on the 1st Jan., 1850	£7130 8 8
Profits from thence to end of Feb., 1851	2300 2 9
	9430 11 5
Making a total to account for of	£13,575 6 0
Which is thus disposed of:—	
Trade expenses, vouched and unvouched	£1364 14 4
Personal expenses and law charges	1008 8 9
Losses, bad debts, and by the furniture	1799 15 10
Depreciation in value of shares	5154 5 0
Liabilities	4248 6 8
	£13,575 6 0

The petition bears date 27th January last. The petitioning creditor is Mr. Birdsey. The capital of 7130l. 8s. 8d. consisted of mining shares, which had subsequently realised more than that amount. The bankrupt had not kept any regular set of books before January, 1850, although in business three or four years anterior to that date. Since then the books had been well kept, by double entry, by his clerk (Bousfield), who had acted as secretary to all the mines he had influence over.

The solicitors, *pro* and *con.*, addressed the court on the subject of some plate, the bankers' pass-books, and upon other matters; but as the case is not yet decided, and the bankrupt may give satisfactory explanations, we shall make no comment.—Mr. Sidney submitted that the bankrupt ought to be required to file a better balance-sheet; he had been in business five or six years, and it referred back only to the last 13 months.—The Commissioner said the books certainly appeared on the face of them to bear out the bankrupt's statements. He had dealt very largely in shares, and had had many bankers. Some of the pass-books, however, were not forthcoming, which was a matter of great importance. He would not pass this examination till he saw how the entries in the pass-books corroborated the beautiful figures of Mr. Bousfield, for figures might be made to prove anything. Connected as the bankrupt had been with so many transactions during five or six years, he ought not to be allowed to draw a line so recently as the beginning of last year. He must make a clean breast, and show the creditors, though he might have kept bad books, what the real nature of his dealings had been. The examination must, therefore, be adjourned, the assignees must present their requisitions to the bankrupt, and abundance of time must be allowed him to give his answers.

Mr. Sidney said he would prepare such requisitions. After some further conversation, an allowance to the bankrupt of 2l. a week was agreed to, and the examination was adjourned till the 29th May.

LONG WIRE.—Amongst the most remarkable productions from Birmingham at the Great Exhibition, there will be a piece of iron wire for the purposes of the electric telegraph, a mile long. This is the greatest length of wire that has ever been drawn; it is from the mill of Mr. John Cornforth.

## PROGRESS OF MINING—DIVIDENDS, &amp;c.

The following are the dividends paid during the month of March, 1851, from 22 mines in Cornwall, Devon, and Cardiganshire, to which we add a short concise account of each:—

Mines.	Per share.	Total.
Devon Great Consols	£8	£8192
Carn Brea	3	3000
Wheal Buller	20	2560
Lisburne (Cardiganshire)	20	2000
South Frances	8	1984
East Wheal Rose	15	1920
North Pool	15	1500
Perran St. George	14	1450
Alfred Consols	14	1280
Treviskey	10	1200
Bedford United	4	1000
Wheal Golden Consols	4	1000
Great Work	7½	892½
Wheal Lovell	2	860
North Roskear	5	700
South Tolgus	2½	640
South Caradon	2½	640
Tremayne	3	512
Spearhead Consols	3	512
Botallack	5	500
Wheal Margaret	3	336
Wellington	4	256
Total		£32,954½

DEVON GREAT CONSOLS continues at the head, and from her large returns monthly, her present prospects, both in depth and length, we anticipate she will stand in her present enviable position for a very long time to come. The shares (1024) have advanced in value during the last quarter from 255l. to 305l., having risen 30l. per share the preceding quarter, making respectively an advance of 7 per cent. and 20 per cent. The present price of shares is equal to the dividends of five years.

CARN BREA (Illogan) comes next in order, and although her quarterly sale of copper ore is considerably below that of the preceding one, the return of tin ore has enabled them to continue the same amount and rate of dividend as for the last 18 or 20 months. Shares in this mine have remained from 115l. to 125l. for twelve months past, equal to 8½ years' purchase. The underground operations are very extensive, and the prospects in many parts are exceedingly good.

WHEAL BULLER (Redruth) is third on the list, and here a greater marked advance, both as regards the value of the mine and market price of shares, is visible. Operations commenced in Midsummer, 1848, with an outlay of only 107l. per 128th share. The fortunate proprietors have already received, within twenty months, 142l. 10s. per share (18,240l.) in dividends. The price of shares has varied as follows during that time:—June, 1849, 320l.; Dec., 380l.; June, 1849, 650l.; Dec., 750l.; March, 1851, present price, 1100l., equal to 9 years' purchase. The prospects are as good as the most sanguine shareholder can desire.

SOUTH WHEAL FRANCES (Illogan) has paid 16l. per 248th (3968l.) during the quarter, out of the profits made from copper and tin raised in the four months ending January: her prospects warrant the assumption that the present rate of dividends will be continued, those for 1851 exceeding 1850. The estimation which this mine is held in is evinced by the Share List. In January, 1850, the price of a share was 155l.; March, 210l.; June, 290l.; Nov., 310l.; Dec., 325l.: the present price is about 305l., which is less than 6½ years' value of the dividends. During 1849 and 1850 she divided profit of 73l. 15s. per share.

EAST WHEAL ROSE (lead and silver, Newlyn, east)—dividends, 30l. per 128th (3840l.), which is rather below the quarterly average of last year: we understand they are likely to keep up the present rate, if not increase it. Shares, however, have receded in price from 600l. in Jan., 1850, to 500l. in March, 1851. In June; they advanced in Sept. to 520l., and in Dec. were 630l. each; down again in Feb. to 575l., and are now about 550l., which is 6½ years' purchase, according to the rate of dividends paying. During 1849 and 1850 she divided profit of 265l. per share (33,920l.).

ALFRED CONSOLS (near Hayle) has paid 13s. per share dividend on 5120 shares, being 3328l. for the four months' ore raised ending Jan. This mine went to work in 1846, incurring an expenditure of 8960l., and commenced paying dividends in Nov. last. The proprietors have received since then 5376l. in dividends, and shares are at this time marketable at 18l. 10s., or 94,720l. for the mine, which is about 9½ years' value. As yet they are only down about 4 fms. under the 80; the lode is from 4 to 6 ft. wide, with favourable indications. It is from the 70 and higher levels the samplings are derived, where they have a very fine course of ore.

TREVISKEY (Gwennap)—dividend 25l. per 120th (3000l.) for the four months' raisings of copper to end of Jan. The amount divided as profit in this and the Barrier ground, from 1846 to the present time, is 221l. 10s. per share (26,610l.), present price about 240l. each, which is 3½ years' value of the bi-monthly dividends. The quantity of ore sampling, however, is rather on the decreasing order, which accounts for it.

NORTH POOL (Illogan)—dividend 30l. per 100th (3000l.) for the four months' raising of copper ore ending Dec. The fortunate adventurers commenced operations in 1845, and expended 4500l.; since then the profit shared among them has been 27,500l.—say, 275l. per share. The lode in the bottom level is more productive than it was above; they have a fine course of ore, and are likely to increase their future samplings. The prices of shares, on 1st May, 1850, were 450l.; 1st Sept., 400l.; in Feb., 450l.; March, 510l., which is about the market value now, or 5½ years' value at the present rate of dividends.

SOUTH CARADON (near Liskeard)—dividend 5l. per 256th (1280l.), for the four months' ore raised to end Dec. They are also a fortunate company of adventurers, having commenced working about the year 1836, and upon the trifling call of 2l. 10s. per share (640l.) speedily met with success. From that period until the present time they have divided 250l. per share, making 64,010l. They have a splendid lode gone down under the 40. The eastern shaft is sunk to the 50 ft. level, and they are driving to get below the ore ground they had above, which is likely to increase their future samplings considerably. Shares in Jan., 1850, were about 100l. each; May, 135l.; July, 145l.; Oct., 102l. 10s.; Dec., 100l.: the present price is 115l., which is about 7½ years' purchase, according to the dividends making bi-monthly.

[We shall continue our analytical notices in next week's Journal.]

We now furnish particulars of the calls made during the month of March:—

Mine.	Per share.	Total.
Bodmin Wheal Mary	£2 0 0	£ 2048 0 0
Boringdon Park	0 10 0	1024 0 0
Carvaunall	0 6 0	316 16 0
Craddock Moor	0 10 0	105 10 0
Crane and Bejawa	6 0 0	1536 0 0
Chyrase	2 5 0	576 0 0
Devon and Courtenay	0 2 0	416 0 0
East Baleswidden	0 10 0	512 0 0
East Buller	0 10 0	512 0 0
East Gunnis Lake	0 2 6	500 0 0
East Tolgus	1 10 0	384 0 0
East Wheal Russell	0 3 6	700 0 0
Esgair Lee (Wales)	0 10 0	640 0 0
Great Wheal Alfred	3 0 0	3072 0 0
Heignton Downs	0 2 6	750 0 0
Lelant	4 0 0	1024 0 0
Llwynmales (Wales)	0 10 0	500 0 0
Mineral Court	3 0 0	768 0 0
North Buller (Gt. South Tolgus)	0 16 8	1000 0 0
Pentire Glaze	0 5 0	512 0 0
Peter Tavy and Mary Tavy	1 0 0	1000 0 0
Runnaford Combe	0 5 0	512 0 0
South Dolcoath	1 0 0	1100 0 0
South Trelawny	1 0 0	256 0 0
Tokenbury	1 0 0	128 0 0
Tolcarne	0 10 0	600 0 0
Trefusis	1 0 0	512 0 0
Tregardack	0 10 0	300 0 0
Tremar (Liskeard)	0 5 0	256 0 0
Trethevy	0 12 6	320 0 0
United, Tavistock	0 10 0	512 0 0
Warleggan	0 1 6	375 0 0
West Alfred	1 0 0	1024 0 0
West Shepherd	0 1 0	150 0 0
West Virgin	0 2 0	102 8 0
West Wheal Seton	2 0 0	400 0 0
Wheal Augusta	0 5 0	768 0 0
Wheal Fortescue	0 10 0	512 0 0
Wheal Henry	1 0 0	216 0 0
Wheal Langmaid	0 2 0	200 0 0
Wheal Lemon	0 10 0	500 0 0
Wheal May	0 5 0	256 0 0
Wheal Oak	0 5 0	270 0 0
Wheal Venton	0 10 0	512 0 0
Wheal Vincent	0 5 0	227 10 0
Total		£ 27,905 4 0

## Original Correspondence.

ON THE EXTENSION OF MELLINOWETH NORTH DEEP ADIT,  
NEAR HAYLE.

SIR,—As mines in the neighbourhood of Hayle and Gwinear are now becoming numerous and extensive, the continuation of the above deep adit towards the south would be of great importance, and is essentially necessary to the proper working of these mines. Had it not been for the Carnon deep adit, the Gwennap mines would not probably have been half so productive as they have proved.

In 1808, in consequence of discoveries of copper in Mellinoweth, near Angarrack Smelting-house, an adit was taken up about 100 fms. to the north of Mellinoweth, and driven south 300 fms. in that tenement up the valley from Angarrack Bridge, and several promising lodes were intersected. In 1824, a company of adventurers, under the direction of the late Capt. Thomas Teague, took a sett of Mellinoweth and the adjoining lands; and I gave them permission, as proprietor of that tenement, to continue the adit south; and about 30 fms. south they cut a lode near Trangle Mill, about 4 ft. big, on which they drove east and west about 250 fms.; and they appeared to be satisfied that it was the north lode of Tregliss, or Great Wheal Alfred. The adit was driven south about 80 fathoms in Nanspuser; so that it is now about 480 fms. in length, and its depth in Nanspuser is about 6 fathoms. If the adit were extended to Nanspuser Bridge, about 250 fms. further, it would be 10 fms. under Great Herland adit. The line from the present adit end to Nanspuser Bridge has Trangle on the east and Nanspuser on the west—grounds which, though in the best mining district in West Cornwall, have never yet been tried. The adit has cost about 50s. per fm.; and it would require about 500l. or 600l. to extend it to Great Herland, where ores to the value of some thousands of pounds have been raised above the present adit level of that mine. By continuing the Mellinoweth deep adit south, the water from another very important mine (Alfred Consols) would be discharged about 14 fathoms lower than at present. When the adit was taken up at Mellinoweth, it was stated that a short time previously a course of ore was discovered a few fathoms north of Nanspuser Bridge, and that some workings were made on it; but, the ground being unsettled, it fell in. These workings appear to have been north-east of Alfred Consols, and in the direction of Trangle. I have on two or three occasions, within the last few years, endeavoured to draw the attention of the public to the great advantages that would result to West Cornwall by the extension south of this deep adit; and I requested a surveyor to ascertain the levels extending to Wheal Clowance, who reported that the depth of the adit at Great Herland would be 10 fms.; at Taphard, near Lambo Mines, 830 fms. from Nanspuser Bridge, 25 fms.; and at Wheal Clowance, 40 fms.; and that it would intersect at a great depth the lodes of Wheal Hope, Wheal Unity, Lamin, and other mines.

In 1843, I addressed a letter with the above views to W. J. Henwood, Esq., F.R.S., who in his reply stated, among other observations, that "the subject is one of the greatest economical importance." Though not, perhaps, of equal importance with the Carnon and Gwennap south deep adit, yet the Mellinoweth deep adit would be of incalculable benefit to the mines in connection with the Gwinear district; and I hope that those who have influence as landowners, or as adventurers, in this mining district, will now give their support to the extension south of "The Mellinoweth north deep adit."—R. EDMONDS: *Penzance, March 31.*

## DEVON GREAT CONSOLS MODEL WATER-WHEEL.

SIR,—I am at a loss to discover the real motive which actuated your correspondent, who signs himself "A Shareholder," Cardigan, when endeavouring to decry the Devon Great Consols contribution to the Exhibition of the Industry of all Nations. It is perfectly true the "water-wheels" in question are nothing more than the application of an old principle to the economical (?) development of the mineral riches of the company's property, but, as such, an appropriate object for exhibition, inasmuch as great industry and skill has been exercised in the adaptation of a magnificent, but hitherto neglected, stream of water to an useful purpose. If your correspondent really be a shareholder, which I do not believe, as I do not find any one whose address is Cardigan, in the lists of shareholders, as returned to the Registrar of Joint-Stock Companies, he will have an opportunity, at the general meeting of the company, which will be held a few days after the opening of the Great Exhibition, of calling the directors to account for squandering their own and fellow-shareholders' money upon a thing devoid of "science, and behind the march of improvement." I emphatically say their own money, because the board, if I am correctly informed, represent, in their aggregate interest, seven-tenths of the concern; and as I know them all to be men of business, I cannot bring myself to imagine they would recklessly throw their money away, without due examination of the advantages, or otherwise, of any project. For my own part, I am perfectly satisfied with the adoption of the "principle and its application, as used in the early days of the late Mr. Gribble," notwithstanding it has cost more than 30 per cent. beyond the original estimate, in consequence of unforeseen difficulties in the excavations of the ground, both for the least and wheel-pit; and, moreover, should have rejoiced to see it extended, to turn idle every steam-engine from Wheal Josiah to old Maria (which, however, is now scarcely advisable, steam-engines having been erected and paid for), persuaded, as I am, it will ultimately result in larger and more continuous dividends than if steam-power were employed, which, after all said and done, is the most important feature to—A REAL SHAREHOLDER, AND THAT NOT A SMALL ONE.  
*City of London Club-house, March 31.*

## DEVON GREAT CONSOLS MODEL WATER-WHEELS.

SIR,—My attention has been drawn to a letter in your Journal of the 29th March, remarking on the models sent to the Exhibition of the two water-wheels erected at the Devon Great Consols Mines. With the paragraph in your previous Journal I was totally unconnected, but I trust it will be seen, when the Exhibition opens, that the models do "show beauty of workmanship," the credit of which belongs, however, rather to the men who framed them than to myself, I having merely designed and superintended the getting them up. Your correspondent is, however, mistaken in stating that the wheels themselves are of "iron"—they are of "wood"; and although the "principle" on which water-wheels are constructed may not be very different now from what it was in 1751, I believe I have introduced in the two erected at the Devon Great Consols Mines all the improvements that have been made since that period. Your correspondent says the large "original wheel exhibits neither economy of power or expense, nor an improvement in principle or application." These points can be better discussed with the directors of the company than through the columns of your paper, and, therefore, I shall not enter into them in this letter; but as the annual general meeting will take place in May, when I shall be again in town to attend to the models, I invite your correspondent to be present at it—if he be a "Shareholder," as he signs himself, although I am informed there are none residing at Cardigan, from whence he dates his letter—and where I shall be happy to discuss the matter with him, and hope to be able to convince the meeting that "neither economy of power or expense, nor improvement in principle or application," has been lost sight of in the construction of the wheels in question. For the rest, I think the exhibiting models of wheels, performing the duty which these do, is only carrying out the proper objects contemplated by the projectors of the Exhibition of the Works of Industry of all Nations. At any rate, I request the "Shareholder" will suspend his judgment on the models until the Exhibition opens, as all the persons who saw them whilst I was putting them up expressed their approbation of them.—N. SMITH: *Mary Tavy, near Tavistock, April 2.*

## NEW YORK COPPER MINE, STAFFORDSHIRE.

SIR,—Noticing in your last Journal a report of the trial, at the Stafford Assizes, of an action by the proprietors of the above mine against the proprietors of an adjoining mine, and being resident in the county, and feeling great interest in mining generally, I beg the opportunity of stating a few plain facts respecting the property, which I hope may be considered worthy a space in your valuable columns.

The mine is situate in the township of Upper Elkston, parish of Alstonfield, county of Stafford, the property of his Grace the Duke of Devonshire and Mr. John Lomas, and held at very moderate dues, under a lease or grant for 21 years, of which there are only about two expired. The property is in one of the richest mineral districts in the kingdom, judging from what has already been explored, and the quantities of ore produced. There is a lode, No. 1, upwards of 50 ft. wide, producing fine green and blue carbonates, red oxide, and yellow sulphate of copper, yielding large and valuable quantities at the present level. Nos. 2 and 3 lodes are from 2 to 4 ft. wide, of similar character. No. 4 lode, east of the engine-shaft, is a very strong and kindly one, but little worked as yet—the operations being more confined to the west of the engine-shaft, where other lodes cross the above at different angles. The engine-shaft is sunk 26 fms. below the adit level, and 19 fms. below all other workings, and at this time is entering on a stratum of limestone, congenial for ore, similar to that in other mines in the immediate neighbourhood, and which have been so celebrated for their great riches. They have a steam-engine of 40-in. cylinder, on the Cornish principle, and the requisite machinery for working to a considerable depth, with a crushing machine, and all other conveniences adapted for dressing ores, &c.

The mine is only five miles from a colliery, where coals are obtained at a



reasonable price. It is within five miles of Look, from whence the Trent and Great Ouse and North Staffordshire Railway communicate with all parts of the Kingdom. There is also the great advantage of an extensive smelting-works at a short distance, the carriage being only 5s. to 6s. per ton, delivered. In concluding these remarks (of a miner of 30 years' experience), I cannot but congratulate the respectable and deserving shareholders on the prospect of their being soon amply remunerated for their patience and spirited outlay.

#### PERRAN ST. GEORGE—GRANITE.

Sir,—When this granite question was first started, I think it was to decide whether Mr. Watson was or was not correct when he said that cautious miners look for copper in or near granite. When "Argus," in reply, attempted to show the great distance of Perran St. George, Wheal Leisure, and Wheal Charlotte from granite, I then stepped in, hoping to set them right. "Argus" being rather inclined to doubt the correctness of my statement, I then referred to Capt. Pill on the mine for further information, which he kindly communicated, accompanied with other very useful remarks, and but few men will doubt as to his statement being correct; but I cannot for a moment think either of us have a right to call on him for measurements, plans, and explanations which might be detrimental to his employer. He has clearly decided the question as to granite being near those mines. The question now put, as to the quantity of copper actually risen from it, was no part of the former question. I agree with "Argus," that if Capt. Pill would voluntarily come forward, and answer these queries, it would be very interesting information; but we certainly have no right to call on him for it. Besides, who are those maps and measurements to be forwarded to? We surely cannot expect the tracings of all the district to be inserted in the Journal; and no private individual has a right to call for them for his own benefit. This also rests with Capt. Pill. I certainly have assisted to raise copper from St. George, and tin from the granite at Clegga; but it was in early days. I saw no men or boys working on the dlan-courses referred to, consequently, my attention was not then called to them; and it is a query if they were then generally known to be there; and even now they are quite foreign to the origin of the question. It is a matter of detail. The real question is, whether it can or cannot be laid down as a law that copper is not to be found to any extent in Cornwall or Devon, at a distance from granite, to introduce the subject (say, not above two miles from visible granite); if so, where? Should this be found to be a prevailing law, who will then risk their capital, as now, in search of copper beyond its bounds? Then a question arises for our learned chemical men, who are more able than "Argus" or myself, to tell us under what circumstances the presence of granite is essentially necessary, in conjunction with our clay-slate, to form large bodies of copper. To my view the effect of elvans on lodes in the metalliferous districts, has but little other effect than cauters, or cross lodes, on each other. They act as stop-valves on the magnetic current; and, the solution passing through the stratum, it concentrates them to a point, and the most active mineral commences the work.

These discussions would be very interesting if carried out, and particularly so if my worthy friend, "Argus," would give his name, either publicly or privately, as it is very unpleasant in these discussions to come in contact with a man who is standing in his own door, and no one knows him. In reference to "R. S.," and under press of present matters, I certainly shall take his advice, and govern my temper by omitting a reply.

Widelycombe, March 28.

"Argus," like other of our correspondents, wishes to remain incognito, to avoid personalities, and the chance of ill-feeling. He has no object to gain but information by the controversy; and we are fully aware of his respectability and standing in the mining districts.]

#### CASSANDRA ANNE MINE.

Sir,—In looking at the list of prices in your Journal of the 29th March, I see the shares of a mine, called Cassandra Anne, divided into 2000 shares, quoted at 12½, 5½, supposed to be paid. Now, as you are at all times ready to receive communications which may encourage legitimate mining, I feel sure you are equally averse to publish anything in your columns that may mislead the public; I shall, therefore, feel obliged if you will insert the following in your Journal, that the public may judge for themselves whether the said mine warrants the premium which is on the shares. This mine, if it can be so called, is situated in a field near the village of Stoke Climsland, and is part of a sett granted by the Duchy under the Assessionable Manors Act, on the land of Sir W. P. Call, Bart. The whole workings consist of some half-dozen costeaning pits, in one of which there is a small branch of flookan mixed with rubble, and the rock below is a hard dark-coloured coarse slate. The opinion of several respectable mining captains in this neighbourhood is that there is no lode worth working upon in that part of the country, and certainly they have not as yet discovered anything to warrant a price which places the mine at the extraordinary value of 24,000£—as much as Holmbush, where the prospects are really good, and a large sum of money has been expended to develop the mine. I have no wish to injure any party by the above statement, but whilst the present great speculation in mines is on foot, I think it as well to endeavour to save the unwary from losing their money.—W. B. CALL: Whiteford House, Stoke Climsland, March 31.

#### ON THE USE OF SLANG TERMS IN MINING.

RESPECTED SIR,—I am an old gentleman living upon an income derived from my own industry, in a remote part of the county of Cornwall, and a steady reader of your interesting Journal. I cannot pretend to the possession of the advantages of a classical education, nor such other refinements as belong to the classes above me; but, nevertheless, I have an intuitive dislike to the use of words derogatory to a subject, and coming under the designation of "slang"—the utility of which, when proper words are at hand, I have not been able to discover, or to find their elucidation in the pages of Johnson or Walker. So it occurred to me, whilst reclining in the old arm-chair after dinner ("my custom always of an afternoon"), that I would ask your opinion on the matter, and have called for pen and ink for that purpose, much to the surprise of my only domestic, who, when I rang the bell, brought in the pipe and tobacco, as usual. Well, Sir, a mine has several other names. *HUEL*, which I am told is derived from a Spanish word, and what the "old men" called it, I suppose, centuries since, but subsequently corrupted into "WHEAL," to which I hold no sort of objection. Then we find in *BAL* a fourth name—the origin of which, or its utility, as a name, I should be glad to learn, since it bears no sort of affinity to the former. Perhaps the Cornish *BALIS* may have something to do with it. In an unfortunate speculation, however, generally the slang title is alone used; so we have not a "knocked" mine, but a knocked "*BAL*;" and what is still worse, as if knocked was not vulgar enough, the word "*KNACKED*" is brought into play—a late use of this term in your last Journal, referring to a mine somewhere in the east, but out of my latitude, called *VINCENT*; and if this is not the height of slang, I should like to know what is. But, still worse, it has a disagreeable association; for I read in our Cornish weekly paper, wherein the London news is carefully copied, that great efforts are just now making to destroy or remove out of the heart of the city certain localities called "*KNACKERS' YARDS*;" but the subject is disagreeable enough without further amplification, and I must not indulge in too long a scribble, as well on your account as my own, for I begin to long for my pipe.

Respected Sir, I am not over fastidious, and have touched the subject of "slang" as delicately as possible; but it should be recollected that mining is a science, in which many wise heads and tolling hands are engaged. It is neither horse racing nor prize fighting; on the contrary, the question of investing in mining shares is occupying the attention of a large class of capitalists, high in position and intellect, and who read your columns carefully and constantly; therefore, I suggest that, whenever you find these objectionable terms in future in your correspondence, unless cause can be shown to the contrary, the way to treat the slang is not to print it.

#### WHEAL VINCENT.

Sir,—I see in your last Journal a letter from Capt. Spargo, complaining of the non-payment of a sum of money alleged to be due to him for labour, &c.—the *et cetera*, as he states, consisting of money, the particulars of which he deems it unnecessary to mention. One story is frequently good until the other is told. I should like much if Capt. Spargo, or his friend, "A Looker On," will have the goodness, before he finds fault with the liberality of the adventurers, to inform you how many hundreds, I may say thousands, of their money were foolishly and recklessly squandered away during the time the management of the mine was in his hands. Why was he dismissed from his situation as captain? The experiment of the wind-machine for crushing the tin ore has been reported by competent parties to be a gross failure. That windmill piece of humbug cost the adventurers a large sum of money, whilst Capt. Spargo modestly asserts that 2½ would cover the expense. The adventurers have had quite enough loss to sustain already, and they are not disposed to be further imposed upon, either by Capt. Spargo, or his *fidus achates*, "Looker On."

#### THE WIND-MACHINE AT WHEAL VINCENT.

Sir,—In perusing your valuable Journal this afternoon, I perceive that at a meeting of Wheal Vincent adventurers they had come to a determination to resist the payment of wages, &c., due to Capt. Spargo, in consequence of his having erected a wind-machine, which, they assert, proved a failure; to which I beg to remark that, being one of the men who worked in the shaft at the time the machine was erected, I feel justified in stating that, although the water was being pumped by horse-power, yet the wind-machine, when set to work, entirely set the horses at liberty, acting remarkably well, and forked 4 fms. of water in two hours. The only reason I can give for its not continuing to set, was from the want of pumps—the lode being large, with good stones of tin. It is true Capt. Spargo about this time made an important discovery eastward; and the suspension of this part might, of course, be somewhat owing to that.—THEOPHILUS PLINT: Stoke Climsland, April 3.

#### WHEAL VINCENT.

Sir,—It is to be regretted that Capt. Spargo, in his letter on the subject of the "wind-engine," in your last Journal, should have made a statement as to the cost of the same so wide of the facts. The question as to the expense to the company of the erection of the machine does not confine itself to the "fir poles and deal axes," but to all materials and labour used and paid for in and thereon, of which a moderate estimate, as I am informed, would be at least one hundred pounds; and although the items making up this sum could with difficulty be traced and separated from general charges in the cost-sheets, it is only necessary to visit the spot, and inspect the immense excavation (several fathoms deep), and the machine itself, to be convinced that the toy must have cost a very large sum. "A few fir poles and an axle, costing a few shillings," would not constitute an object visible for miles around, to say nothing of the sails, which, if not struck, are now idly disporting themselves in the wind. I would beg to offer a word of advice to Capt. Spargo, and that is to propose to the company to remove the machine; or it may, by remaining where it is, obtain a name not very flattering to the reputation of its projector.

#### AN ADVENTURER IN WHEAL VINCENT.

KENMARE AND WEST OF IRELAND MINING COMPANY. Sir,—It is at all times with regret that observations should be required on mining operations, which may possibly have the effect of militating against the general interests; but there are moments when we (excuse the editorial expression) should be neglectful of our duty, if attention was not directed to schemes which must in the end prejudice the mining interest generally, by the sacrifice made by parties who, embarking capital, possess no further knowledge than that conveyed by the prospectus. Now, Sir, were the prospectus put in a straightforward shape, I should not offer any observation; but when I find that not one, two, or three, but some twenty of these productions, which only cost the printing, are placed before the public, and that parties are humbugged (excuse the expression), I do consider it a duty imposed on you, as Editor of a paper which assumes, and does possess, a power of directing attention of capitalists to mining investments, to expose abuses, which I regret to say are too frequent, as also your notices with reference to new projects—those only acquired from the prospectus itself, or, possibly, furnished you by the promoters. I have now before me several prospectuses, to one of which I will alone call attention, although I might refer to others, which, with your sanction, will form subject of further notice.

The Kenmare and West of Ireland Copper and Silver Lead Mining Company "comes out with 20,000 shares, of 1½ each. Now I have no doubt whatever but that the mines are worthy of working, and the conveyance of "right of search and mine for minerals of every kind, free of all dues and royalties," is a desirable speculation; but I would ask you, Sir, whether it is fitting that a prospectus of a company, consisting of 20,000 shares, should be put before the public without any communication of the "purchase" money, or, perhaps, I might say the "pocket" money, required? I know something about the property, and I believe it in itself to be good; but we may buy gold too dear, and I for one do think that when prospectuses are put forward the figures should be placed, and not that course pursued which is so much calculated to injure the mining interest. I am given to understand that this mine, divided into 20,000 shares, has been sold at 2½, per share previous, even previous to the disposition of the shares—thus, with the deposit, making something like 60,000, to 80,000, for the mine. I believe the outlay on the mine has not exceeded 8000£, and that it was to have been had for a comparative trifle, being abandoned by the adventurers. I should much like to know what is the purchase money out of the 20,000£, and, consequently, that which remains for the "working" of the mine, and not the shares; while I cannot but direct attention to this one point—that with 80,000£, as purchase money, the returns, by way of net profit, must be upwards of 16,000£, a year, to yield a revenue of five years' purchase, at which rate shares may be obtained in paying mines. The superintendent of the mines, Mr. Henry Dillon Croker, I have no doubt, will do his duty, being interested as he is, with the property; but I must protest against premiums being thus obtained, which in the end, as I have before observed, will so far militate against the mining interest.—H. E.: City, April 4.

A WELSH COPPER MINE is, comparatively, a rarity, notwithstanding the free extension of capital to mining undertakings in the principality, as well as elsewhere. Wales is chiefly distinguished for its lead mines, which are abundant and rich, and will always command the market, both from their superior quality and from their near neighbourhood to the great smelting-works. Moreover, no foreign competition can much affect the home lead mines. The case is, however, somewhat different with respect to copper. The richness of many of the foreign and colonial copper beds gives them an advantage which must, especially in these days of free trade, sooner or later affect the interests of such of the home copper mines whose produce is not above the present average standard. This will be more especially the case should the process of smelting abroad be extended, as is threatened. The best chance for the home mines competing successfully with such foreign and colonial products, should the latter go on increasing as they have increased of late years, is by the discovery of copper lodes of a superior standard, for any favourable reduction in the present working costs of the home mines would have but partial effect. Attention has of late been especially called to this matter, and it is, therefore, not without interest we have read the reports and the certificates of assay of the copper discovered in the manor of Bulth, in Radnorshire, and the adjoining ground. The specimens submitted to us are very rich, the assayed value being 33 per cent. of pure copper; and, if in the progress of the works the produce should turn out anything like this sample, which is represented as even less than a fair average, having been dug out promiscuously at different times in the progress of the works, it may be fairly pronounced as a discovery of value and importance. The Nant-y-Car and the Dalrhieu are the two mines to which we allude. The shares in the latter, which were allotted at 30s., are selling at 10½, although operations have but recently been commenced. In the course of these operations a shaft has been undertaken to intersect the lode at 40 fms. deep, and a water-wheel of 50 ft. diameter is now being erected, with all the necessary gear, by which the mine will be drained and the produce be raised at a very small cost, the water-power being abundant on three sides of the sett. In the air-shaft the lode has been cut at a depth of only 20 yards, and is found of the same quality and character as the copper in the Nant-y-Car sett, which adjoins and which has been assayed at 33½ per cent., so that no doubt can be entertained of the identity of the main lode in the two setts. It has actually been traced from the Nant-y-Car ground across the bed of the stream which parts the setts, and is visible to the naked eye at seasons of low water. It is, in fact, so marked on the Ordnance Map by the geological surveyors, and may, therefore, be considered as satisfactorily established. A short time will now fully test the real value of these mines.

PENCRAG LEAD MINING COMPANY.—This property is situated at Llanrwst, North Wales, and the present owners having erected machinery, opened the mine, purchased stores, &c., with a view to a more effectual development of its resources, propose to work them by an influential public company, the terms of the prospectus of which will be seen in our advertising columns. Out of several valuable lodes one only has yet been worked, from which 2000£ worth of ore has been sold, raised from the shallow depth of 32 yards. A report from Captain George Davey states that the present water-power and machinery is sufficient for all the contemplated works—that the profit on 2000£ worth of ores would be at least 1000£—and that better produce, and, consequently, still better returns, may be expected in depth. The sinking of the engine-shaft is being continued, and is now 9 fms. under the lowest adit. There is an excellent shipping place at Trefrew, three miles distant, and the general appearances give great promise of a productive mine.

MINING IN SCOTLAND.—The mines of the stewardry of Kirkcudbrightshire are progressing most satisfactorily. The workings on the copper lode, on the Cally estate, which had been suspended, are again resumed, to the joy of the people of Gatehouse, who had just to lament the breaking up of their cotton factory. We have been informed on good authority that a rich course of copper ore, from 15 to 18 in. thick, has very recently been opened on, of rich quality, having assayed 29½ per cent.—a large specimen is, we understand, in the Exhibition. At Black Craig, near Newton Stewart, about 20 years ago, a lead mine was in operation on an extensive scale, and making fair returns, but a disagreement having taken place between the proprietors and land owners, the works were abandoned, and laid idle until about two years since, when a lease was obtained by some English adventurers. All the old workings are secured, a powerful engine erected to drain the yet untouched bottom level, crushing and dressing machinery constructed on the newest and most approved principle have been obtained, and there is every hope of large returns. A sett adjoining Black Craig has been obtained by another English company, where a powerful engine has been erected and in full operation. A vein of lead ore of great promise is also being opened on at the mines of Wood-of-Cree, on the Earl of Galloway's estate; also at Silver Riggs, the lead ore of which is particularly rich in silver—his lordship possesses a massive service of plate manufactured of silver from this mine. The influx of so many individuals connected with the exploration of these mines, and the circulation of so much cash as wages and cost of materials will create, must greatly benefit the neighbourhood, particularly Newton Stewart and vicinity.

IMPROVEMENTS IN BLASTING.—At Carnsew Quarry, near Penryn, on Saturday afternoon, one of Copeland's cartridges was fired in a 12-feet hole. The cartridge was 18 lbs. weight, including fuse, &c.; it was put into the hole where there was 7 ft. of water, which, as a matter of course, made the lower layers of tamping very imperfect, notwithstanding which the execution of the charge was immense—nearly a thousand tons in all being hurled into the quarry, or removed for working purposes, without injuring the stone or fracturing the collar of the hole, the tamping remaining perfect. Although the depth of the hole was only 12 feet, the charge finding its way through the fissures at the base, acted to the depth of 24 feet.

DISGRACEFUL AFFAIR.—On Monday the pit-ropes at Stanley Colliery, belonging to Mr. Barber, was nearly severed by some evil-disposed person. During the night, several of the workmen had ascended and descended singly; had they been altogether lost of life must inevitably have ensued. We understand a reward is offered for the apprehension of the scoundrel, and we trust, if discovered, he will meet with a most severe punishment.—Derby Reporter.

## Mining Correspondence.

### BRITISH MINES.

ALFRED CONSOLS.—The lode in Field's engine-shaft, sinking under the 80 fm. level, is 6 ft. wide, composed of capels, spar, and mundle. The lode in the 80 fm. level, east of said shaft, is 5 ft. wide, 2 ft. of the north part is producing a great quantity of mundle, intermixed with copper ore; the lode here is, we consider, improving in appearance very much. The lode in the 70 fm. level, east of the engine-shaft, is 7 ft. wide, 4 ft. of the south part is good for copper ore, worth 50£ per ton. The lode in Wild's shaft, sinking under the 60 fm. level, is 4 ft. wide, yielding some good stones of copper ore. Our tribute pitches are looking well. Our copper sampling for next sale is computed 279 tons.

BEDFORD UNITED.—In the 115 fm. level, east of engine shaft, no lode taken down. In the deep level, east of Andrews' mine, the lode is 2 feet wide, half of which, on the north wall, is good work. The lode in the 103 east is 3 ft. wide, and will yield 6 tons of ore per fm. Arscott's mine in the 90 is held to the 102. The lode in Parker's mine, in the 103, is 3 ft. wide, producing a little saving work. In the 90 the lode is 2 ft. wide, producing saving work. We continue to drive by the side of the lode in the 80 fm. level. We are still driving north in the 47 fm. level. We weighed off at Morwellham on Friday last. January ores are sampled; February ores computed 140 tons.

BLACK BURN (WESTMORELAND).—In the low level the beds continue horizontal, but with every appearance of a strong vein in the immediate neighbourhood; backs are crossing more frequently, and we still meet with nodules of mundle imbedded in the solid lime—a strong feeder of water comes from the bottom of the lime. On the 25th inst. they had touched a back showing more strength than any we have lately met with, but in a few days we shall see what it is like. The circulation of air is defective, but not so bad as to materially affect the working, and no difficulty on this head is anticipated before reaching the veins. At Scarberry we have sunk in the vein 23 ft., the last 4 ft. in what appears to be the thick part of the great lime. The vein is 3 ft. wide, and the ore continues improving as we go down, showing a disposition to collect into a rib, with more rider and less caulk. There is now about 4 cwt. of ore per fathom. We intend sinking down to the low flat, and then driving west in it, to prove the point of the vein, its general appearance, &c., if the water does not stop us. About 15 fms. north of shaft we trencched Forster's vein, and obtained ore close to the surface, the width, strength, and mineral appearance being nearly the same as Scarberry vein. We purpose driving a level in the plat under the Quarry Hasle 70 fms. to the point where Forster and Scarberry veins are in junction on the west side of Inner Gill vein, and from the appearance of these veins near the surface, may fairly expect a mine in the Hazel; and, as the 4 fm. lime below is not likely to hold water, it can also be worked from this level. The ore we now have in Scarberry vein would pay for sinking out, if the level was up under it.

BODMIN CONSOLS.—We have opened a course of lead and copper in the 13 fm. level, north of the engine-shaft; the lode is about 2 feet wide, worth from 20£ to 30£ per fm.; we have a solid leader in the end, 3 inches wide—the other part is of copper and lead, mixed with gossan, ore, mundle, and peach—such a fine lode as I have not seen for some time in any mine. We have not yet seen the lode at the 25 fm. level, but have discovered some branches dropping into it.

BODMIN WHEAL MARY CONSOLS.—The plat is completed in the 20. No. 3 lode, in the 20 fm. level, is 18 in. wide, all saving work. The pitches in the back of the 10 are progressing well. In the 10 fm. level west, on No. 1, the lode is large, and more kindly for ore. The lode in the stopes in the back of Spargo's drift, 8 fms. below adit, on No. 1 lode, is 3 ft. wide, producing 2½ tons of ore per fm., at a cost of 18s. per fm. It is a full number of hands dressing ore, and putting to pile 2 tons per day. The lode in the western winze is 2 ft. wide, producing good stones of ore.

BORINGTON PARK.—Since last report the end has been driven about 8 fms., and in that driving we have intersected a branch which appears to be running nearly north and south, and which has turned out some good dressing work. We have cut through the lode about 5 fms. east of the branch, which is upwards of 12 ft. wide, with two well-defined walls; and, in a word, I do not hesitate in saying, a more promising lode cannot be seen in its infant state in any mine in Devon. I intend commencing our engine-shaft next week, which will be put down with all possible dispatch. The men are getting on with the leats as well as can be expected.

BRYN-ARIAN.—The appearances in the different bargains are much as last reported, with the exception of the lode in Hallett's shaft, which has been much disordered in the last few days by several branches of jack intersecting it; but to-day the lode appears to me more settled, and will yield about 15 cwt. of ore per fm. The 20, driving west from the engine-shaft, is still in a large ore lode, yielding about 15 cwt. of ore per fm. The 10, west of the shaft, is in a lode 6 ft. wide, with several small branches of ore, but not of much value. The winze sinking under this level is producing 10 cwt. of ore per fm. The stopes in the back and bottom of the deep adit level, west of the shaft are producing from 12 to 15 cwt. of ore per fm.

BUTTERDON.—The south end is driven 6½ fms., where the lode is 4 feet wide, and much the same as when last reported; there is some elvan coming in the bottom of the end, from which I hope a change for the better will take place in the lode; the ground is favourable for driving, present prices 30s. per fm. We have commenced driving north adit, where the lode is 3 ft. wide, composed principally of spar and prlan—present price 40s. per fm. The shaftmen are set to cut the plat, which will be done with all speed (and hope to be able to keep the end driving at the same time), after which we shall fix the plunger-lift and commence sinking.

CARTHEW CONSOLS.—In driving the 85 fathom level end north we are opening tribute ground, and the lode is very much improved of late, and from present prospects, a much greater improvement may be expected shortly. The lode in the 75 fm. level end north continues to look very well, as does also the lode in the south end of this level, where we are laying open good ground for tributaries. The south end in the 65 fm. level has a very fine appearance, the ground being very easy, and the lode yielding a good amount of lead and copper. The north winze in the 65 fm. level is now held to the 75 fm. level, whereby this part of the mine is well ventilated, and a very good lode seen in either end of this winze from the back of the 75 to the bottom of the 65 fm. level, the south winze in this level is down to the 75 fm. level, but not yet held, the end not being quite up to it. On Monday we intend commencing to sink the middle shaft from the 65 fm. level, having completed the preparatory work. The tribute pitches are much as when last reported.

CHYPRASE CONSOLS.—In driving the engine-shaft north, which we have done 11 fms., we intersected an elvan course, which we have now got through, and have in the end a beautiful killas, with some soft branches of elvan mixed with it, and having more water issuing from the end. I think there is every prospect that we are getting near the lodes; we have driven a cross-cut south 11 fms., the end is in white killas and floor-spar, very soft, and there is every indication that we are getting near the lode in this end. The engine-shaft and pitwork are all in good order.

DEVON AND COURTENAY.—The lode in the 60 end west is 5 ft. wide with a leader 18 in. wide, and the other part of it is good saving work, except a small horse of killas, about 3 ft. high and 9 in. wide, which divides the lode; it does not reach to the bottom of the end, and very small in the back. The lode in the east end is poor, and in a disordered state, by a cross-course now crossing the end. The lode in the 15 end is fair, and has a very promising appearance, but still poor. In Carthew we have a hard floor of ground at present, therefore our progress is rather slow. In Randle's shaft we are in a fine channel of ground, and getting on most favourably.

EAST BALLESWIDEN.—We have fixed the lift 3 ft. deeper under the adit level, making 23 ft.; and the ground to that depth is all worked away for tin. We came to an arch of ground about 6 in. long, and from 8 to 10 in. deep, where the lode was from 7 to 9 in. wide; and what I broke made a produce of 2½ per sack of 14 gallons; we could save one-third to itself, and then the produce would make 3½ lbs. per sack. I never saw so kindly an appearance for tin in any mine I have been acquainted with as I have seen in this; and I rest perfectly assured that, ere long, we shall have a first-rate dividend-paying mine.

EAST CROWDALE.—In the 50, east of middle shaft, we have cut through the cross-course, and likewise the elvan course south, and discovered a good bunch of tin, 3 ft. wide; as yet no south wall of the lode. This looks encouraging; and we hope it is a continuation of the bunch we drove through in the 40. The 40 stopes in the back are tiny, but poor; the stopes in the side of the 40, south of the elvan course, are producing fair tiny work. In our tribute department we have no alteration. In another month we hope to commence sinking from the 60 at the middle shaft.

EAST SHARP TOR.—I have nothing new to advise you this week respecting the ground in Hitchens shaft; it continues of the same character, and is tolerably easy of progress.

EAST TAMAR.—The 70, north of Furzehill shaft, has been extended 7 fms. 4 ft. in. during the past month, lode on an average yielding 9 cwt. of ore per fathom; it is easy for driving, and opening good tribute ground in whole to the 60. The 60 has been extended 5 fms. 4 ft., lode 3 ft. wide, and worth 10 cwt. of ore per fathom. Harris's winze, in the bottom of the 60, and 5 fms. north of the 70, is 4½ fms. long, and produces 10 cwt. of ore per fathom. In the 60, south of Furzehill, the lode is 2½ ft. wide, worth 7 cwt. of ore per fathom, ground more favourable for driving, and congenial for lead. In the 26, north of Church-lane shaft, the lode is 4 ft. wide, a close tight can, carrying about 5 cwt. of ore per fm., and likely to improve. The rise in the back of the 60 to the 45 fm. level has been held, and the water completely drained from the old workings, underground shaft, and at Whitson, for nearly 200 fms. in length; we, therefore, have placed more men on tribute to advantage. At Gullett's we have been inconvenienced from heavy rains, and not made much progress in clearing the deepest level, which is 55 fms. below the set adit, and 80 fms. from surface. The pitches generally are improved, and nearly all set at low tribute, so that we may reasonably expect to have an increased quantity of ore for our next sampling, and it will yield a greater profit for some time past.

EAST WHEAL GEORGE.—We have taken down the branch on the east side of the cross-course in the 33 fm. level, from which there is some good work; it is now within 18 in. of the main lode; this level is let to 6 men, at 5½. per fm.; the 23 went to six men, at the same rate; we propose to drive on the course of the branch, the ground being more favourable for exploring. We have let the winze to sink in the bottom of the 12 fm. level, 10 fms. east of shaft, to four men, at 50s. per fm. The lode in the 12 east is from 4 to 5 ft. wide, carrying a branch of ore on the north wall—let to two men, at 5½. per fm.; the slope in the back of the 12 west is yielding fair work—let to two men, at 24s. per fm. We expect to sample March ores on Monday next, 22 tons. We have dropped the new lift, which is now in course of working; it has made a difference of two strokes a minute to the wheel. We broke the crank on Saturday, which prevented any setting the bottom levels before to-day (April 3).

The following is a report which has just been received from Mr. Jehu Hitchens:—*Trevelick*.—At my late visit to this property, on Wednesday last, I was greatly pleased to see the ore I saw at surface dressing up for sale, as also the appearance underground, a very brief description of which will suffice to possess you of my general opinion of your mine workings and prospects here. In the first place, the lode is an extraordinary one, having yielded so large a quantity of rich copper ore above the back of the 12 fm. level, at only a few fathoms below the surface. This level has now reached to extent of the ore ground west, and getting near the surface is now very properly stopped; this branch of ore, of course, is but limited, and further returns to any considerable extent must, in this part of the mine, be expected only in depth. The end driving east in this level, in the large sparry lode, with fine stones of copper ore in it. I think that in this direction there is a great chance of meeting another deposit of ore, and should, therefore, advise its being continued. In the 28 fm. level cross-cut south, at about 4 ft. before reaching the lode, a splendid branch of rich yellow copper ore, from 4 to 6 in. wide, is to be seen, which, as far as can now be ascertained, is running parallel with the lode itself, which has also been cut through, and found to be from 5 to 6 ft. wide, composed of large sparry capels, with mundle and yellow copper ore disseminated, and very promising. Ends both east and west are to be driven on its course; these I should advise being extended about 5 fms. each way, and then to cut into the branch of ore before noticed, to ascertain its direction and character at these two points; the levels can then be resumed driving as circumstances shall dictate, and I have no doubt but the 12 fm. level west will be met with, and I have



a good opinion also of the eastern ground, although you may have to drive some greater distance in that direction. It is advisable, also, not to sink your engine-shaft; and this brings me to your present great difficulty, to which I think your attention is more particularly called—viz., the water engine wheel, its attachments, and the pitwork. The wheel, which is 36 ft. diameter, and 3 ft. clear in the buckets in breast, with a sufficient supply of water, provided it is to be procured, is equal to keeping the mine close to a considerable depth, with a 12 inch box, and lifts to suit, and to work at but very little above a fair rate. Now, the wheel is flying at about nine revolutions per minute, or at a velocity of the periphery of nearly 17 ft. per second, when six to eight is the calculated maximum effect. There is a 10 in. box or lift to the 12 ft. level, and an 8 in. lift to the 23; but as almost all the water falls through the lode to the 23 ft. level, the 8 inch lift is too small to supply the 10 above; it is, therefore, proposed to drop a 6 in. lift by the side of it, in order to match the other; this will reduce the present destructive rate, both to wheel, boxes, and pumps, to about 64 revolutions, or 13 feet per second, which is yet far too fast. You are certainly not showing your wheel fair play, and its being at first both these, with a chance supply of water, might, with care and reservoirs, do a deal of work; but for draining, a regular and constant stream is necessary, and as I am told there is a chance of your present supply falling off in summer, the question of steam will soon call your attention, unless you shall succeed in obtaining a grant to use the River Walkham, which at all times will afford a constant and sufficient supply. Before, however, a high amount of rent is agreed for, it will be well to go into a calculation, so as not to pay dearer for water than the manageable power, steam, can be obtained. I therefore presume I have touched on the points most requiring attention and remedy. I therefore beg to conclude, not, however, before doing justice to your underground management by stating that a good deal of work has been done in the time the mine has been in operation, but of the machinery, I certainly cannot speak in great praise, either for strength or slightly effect.

**EAST WHEAL RUSSELL.**—Our engine-shaft is sunk 9 fms. 3 ft. below the adit level; we should have been several feet deeper but for so much rain. The lode in the bottom of the shaft is looking most splendid; another of the north parts now coming into the shaft, full of the finest gossan, quartz, peach, prlan, and tin ore intermixed.

**ESGAR LEE.**—Our setting was on the 29th March, of which the following is an account:—The deep adit, east of Morgan's winze, by six men, 4 fms. stent, or the month, at 51. per fathom; the lode is 4 ft. wide, looking very promising, and will on an average yield 15 cwt. of ore per fathom. The 12 ft. level, east of Morgan's winze, on the caunter lode, by four men, 4 fms. stent, or the month, at 31. 10s. per fathom; the lode is 3 ft. wide, and in quality and general appearance is much the same as when last reported, being composed principally of friable quartz, and producing some saving work. To stop in back of the deep adit, west of Morgan's winze, by four men, 8 fms. stent, or the month, at 21. 10s. per fathom; the lode is 6 ft. wide, with small branches of ore through it, and will on an average yield 8 cwt. of ore per fathom. To stop in back of this level, east on Owen's winze, by four men, 8 fms., or the month, at 21. 7s. 6d. per fathom; ditto, west of ditto, by four men, 8 fms., or the month, at 21. 7s. 6d. per fathom; the lode in these stops are looking very promising, and will on an average yield from 10 to 15 cwt. of ore per fathom. To stop in bottom of the 12 fathom level, east and west of George's winze, by four men, 8 fms., or the month, at 21. 10s. per fathom; the lode will yield 12 or 15 cwt. of ore per fathom. To stop in back of this level, west of Morgan's winze, by four men, 8 fms., or the month, at 21. 10s. per fathom, the lode yielding about 15 cwt. of ore per fathom; ditto, west of Harding's winze, by four men, 8 fms., or the month, at 21. 5s. per fathom, the lode will yield about 10 cwt. of ore per fathom. We are getting on with the chasing as well as can be expected, considering the severity of the weather—in fact, during the last three weeks we have not had one dry day.

**GREAT POLGOOTH.**—At Taylor's shaft, we are cutting shaft-plate in the 110 ft. level, where we have cut a branch containing a little tin. The lode in the 96 ft. level appears to be improving. The north lode, in the 84 ft. level, is 1 ft. wide, rich for tin; if it continues as at present, we shall be opening out some productive tribute ground. We may state that it is presenting a more pleasing feature than had ever been seen in this level. The lode at Boskilling has a promising character, and contains spots of tin. The tribute department continues much the same as for some time past. We shall hold our monthly setting for April on Friday, the 4th inst., when we intend letting several new bargains where we anticipate some important discoveries will be made. The sales of tin for the last month have been about 35 tons, at 50l. per ton.

**HEIGNSTON DOWN CONSOLS.**—No lode taken down in Doidge's winze under the 45 since last report. The lode in the 45 east is much as last reported. The lode in the 35 east is carrying a leader of good yellow copper ore, 8 in. wide, and the ground in the cross-cut south in this level is just the same. The lode in Hitchens' shaft is 4 ft. wide, interspersed with copper ore. The lode in the 35 west is 3 ft. wide, producing good saving work for copper ore.

**HELVELLIN (WESTMORELAND).**—In the old level the vein has split, sending off leads to the southward, and there appears great confusion—we expect this arises from the proximity of the cross vein. All the leads bear ore, and there is every symptom of highly metalliferous ground. In the low level we have driven 10 fms., of which 9 fms. is wholly in the samuel (loose stones, earth, &c.). The beds are now 4 ft. up in the fore-head, but they rise slowly, and at the present rate it will require 2 fms. driving before getting a close fore-head. The vein will be on the south side of the level, and must be near us, as the rock is traversed by leads, which, from their mineral appearance, evidently proceed from the vein. When driven a sufficient distance in the sound rock, I purpose cross-cutting to prove the vein or veins, and will then turn the level into the one offering most advantages for driving.

**HENNOCK.**—The engine-shaft is progressing as fast as can be expected—the character of the ground much the same. I have taken the men from the end, and put them to sink a winze under the 20, for ventilation, by the time the shaft is down to the 30 ft. level.

**HOLMBUSH.**—We hope to complete Hitchens' shaft by the end of April to the 132 ft. level, so as to enable us to lift the stuff from the plat instead of drawing it through the diagonal shaft by manual labour. We have cut the caunter part of the copper lode in this level, which is 12 ft. wide, producing stones of copper ore. The lode in the 132, west of the diagonal shaft, is 12 in. wide, and will produce 1 ton of ore per fathom, and we are opinion that it will speedily improve. The flap-jack lode in the 120 ft. level, east of the cross-course, is 24 ft. wide, making two good walls, and producing stones of ore, improving as we proceed eastward; the same lode in the 110 ft. level, east of the cross-course, is 2 ft. wide, composed of spar, mndic, and stones of ore. The lode in the 100 ft. level, east of the cross-course, is 2 ft. wide, producing stones of ore. The lode in the bottom of the level, east of the eastern winze, will turn out 5 tons of ore per fathom. The lode in the 100 ft. level, west of Walls' shaft, is 4 ft. wide, composed of spar, mndic, blend, and stones of ore. We have commenced sinking Walls' engine-shaft below the 100 ft. level, and find the ground more favourable than we anticipated. We sampled the copper ore last Friday (the 29th March), at Calstock Quay, computed 225 tons.

**KIRKCOBRIGHTSHIRE.**—The lode in the 74 end, west of Stewart's, is improved; a little in size and quality, being 24 ft. wide, and yielding 8 or 9 cwt. of lead per fm. The lode in the 62 end, west of Gilpin's, is 3 ft. wide, and unproductive. The lode in the 50 end west is still without ore. The lode in the 40 end west is 34 ft. wide, with good stones of ore. The 30 end, west of Keith's, has not yet improved. We have shipped a cargo of ore again to-day (March 29).

**LAMHEROEE WHEAL MARIA.**—I find things progressing very satisfactorily here. Jesse's shaft on the B lode is 124 fms. below the adit; and, in six weeks more, I expect it will be down to the 20 fathom level, when a plat is to be cut, and this large lode, after being cross-cut, driven on east and west. The present appearance of the kilias in the shaft is varied. It struck me, on first view, to be unfavourable; but, on further examination, I find it to be made at right angles with the lode, and intersected by branches of mndic and floor-spar dipping towards the lode, which gives me great hopes that in the 20 ft. level, or near it, we shall cut the lode as important as ever we expected it. The shaft on the Champion lode is down 6 ft. on the south branch of the lode, which is 6 ft. wide. A horse, or layer of kilias, divides the south part from the north; at this point, before the layer appeared, the lode was 12 ft. wide. We calculate the northern branch to be about 2 ft. wide; they both contain tin, and some fair samples I took from all parts of the lode. The two assays resulted in 25 per cent. and 30 per cent. of oxide of tin. At the junction of these two branches, in a few fathoms further sinking, I expect some important results; at present, the lode is eight in. and valued at 100l. per fm. This shaft is sinking by four men at 51. 10s. per fm. The cross-cut north in the 60 ft. level engine-shaft is within 30 fms. of this Champion lode, and is now driving by eight men in easy ground. The tin lode at the engine-shaft is holed by winzes from the 60 to the 50 ft. level; and the same men are now rising from the 30 to the 40 and 30 ft. levels. The 50 ft. level end is now driving 17 fathoms on the course of the tin lode; the lode is of variable size, in splices, containing good ore ground of the same arsenical character. In the extent opened we may calculate about 1000l. of tin ore in sight. I think I may say fairly we have about 3000, to 10000, worth of tin ore at surface; and I hope our stamps and floors, will be fit for returning tin in six weeks or two months. The very wet weather has much impeded operations at the surface; but now every effort will be made to make up for lost time. The pile of dressed copper ore from Jesse's shaft from the gossan, from the back of the D lode, is about 8 tons, and assays equal to 2 per cent.

**LLWYNMALEES.**—We yesterday cut into beautiful ore in the 14 ft. level west; in the stopes over this level, west of western winze, for 3 fms. high, there is very good ore; in the stopes over the 14, west from western winze, and over the former stopes, there is an excellent course of ore. On Saturday last, there was a very fine-looking lode in the 24 ft. level west; and the 24 ft. level east looked pretty well.

**NEW EAST CROWDALE.**—I have much pleasure in reporting that we are progressing with our surface work, &c., satisfactorily, since the cessation of so much rain. The roof of the smith's shop, material and account-house, will be up by Saturday, and I expect the water will be in fork in the 14 ft. level by Monday next. I am happy to say the wheel and other parts of the machinery have not sustained any injury worth noticing since the suspension; therefore, I have every reason to believe that all the preparatory and necessary work will be completed in a proper manner, so as to cause no delay, by the time the steam-engine will be ready to work. I feel confident that, with a spirited trial, this mine will be productive of good results, taking a retrospect of the same lode wherever it has been fairly prosecuted to the west of this point, as I believe is generally known from the immense returns and profits made in the West Crowdale, Crebore, Liscombe, and Gannils Lake Mines.

**NORTH BULLER.**—I have thoroughly inspected the underground operations of this mine. The Louis engine-shaft is now down 31 fms., the ground of the most favourable character. The lode that has left the shaft is 3 ft. wide, with rich stones of copper ore; three other lodes have gone through this shaft since its first commencement, all exceedingly promising, and which are to be seen in the shaft. It is thought advisable to sink this shaft down to 40 fms. before cross-cutting north, for these lodes are all near the shaft, and at that depth a cross-cut driven south to intersect the Louis lode, from which was found rich copper on the back near the surface, so that there will be five lodes to prove at a depth of 40 fathoms. Within two or three months, there will be doubt, in the minds of practical men as to the results. King's shaft is completed down to 30 fms., the lode greatly improved; the flat-rods are nearly finished, and will be fixed immediately. The steam-engine works well; at present there is but little duty for the engine to do, being scarcely any water in the mine. The cross-course upon which the adit level is being driven is considered a great discovery, as it was near this same cross-

course our neighbour, West Buller, made such a rich course of ore. I thoroughly examined it, and found two very compact walls on either side, and by dialling it is expected that King's lode will be cut in about 3 fms. I went through the accounts, which are satisfactory, and I am much pleased with the prospects of North Buller; this is not only my opinion, but the opinion of every practical man that has seen the mine.

**NORTH WHEAL BULLER (OR GREAT SOUTH TOLGUS).**—The following report was read at the meeting, noticed in last week's Journal:—

We have commenced sinking the diagonal shaft below the 60 ft. level, and are now down about 11 ft. below that level; there is a lode in this shaft about 20 in. wide, composed of spar, and capel, with occasional stones of good ore in it; should the ground continue as it is at present, we expect to be deep enough to drive a 70 ft. level in about three months from this time. The 60 west and 60 east have continued very much the same for the last two months; there is a large strong lode in each end, varying from 20 in. to 2 ft. wide. The 50 west has been driven through a very promising lode since our last report, and there is every probability of our meeting with ore as soon as we get under the ore ground gone down in the 40, which is about 30 fms. further west; this level has been suspended for about ten days, to rise in the back of it against a winze which has been sunk in the bottom of the 40, and which is now communicated; we have, in consequence, much improved the ventilation, and shall be able to push on the 50 with all possible dispatch. The 40 west has been driven about 14 fms. during the last two months, through a very kindly lode, the last 4 fms. of which have produced about 5 tons of ore, but at present there is a small limb of a cross-course in the end, which has rather deranged the lode. The lode in the bottom of the level, since we have had this ore, has been much better than it was either in the end or back, so that we may hope for a still further improvement when the 50 gets under this ground. The 30 west has been suspended to drive a cross-cut south to cut the south branch, which it appears we shall soon see, as we are now in the capel which joins the lode; as soon as we have intersected this branch we shall be better able to judge of the relative position of Buller lode, west of the cross-course. The cross-cut north from Kool's shaft, in this level, has been driven in the last two months about 10 fms. through a very favourable channel of ground; we are about to sink a winze in the bottom of the 30, about 7 fms. before the 40 end, and should the lode continue as at present, we hope to break some tons of ore in it. The cross-cut south in the 20 has been driven about 7 fms., and is now in a channel of elvan, but we have not met with any lode. The adit level, on Mill lode, still continues to present a very favourable appearance. We hope by our next two-monthly report to be able to inform you of our having sampled a small parcel of ore, to assist in meeting the expenditure.

Extracted from Capt. W. Sincove's weekly report, dated Redruth, March 22:—

“Our sampmen are getting down very well with the flat-roof shaft from 60 to the 70, on Buller lode; the lode is about 15 in. wide, of a very promising nature, producing good stones of ore and mndic, with spar, &c. The 50 ft. level is greatly improved, and we have every reason to calculate on its producing a good bunch of ore as we pursue it westward, having a good lode gone down in the level above about 30 fms. before it. The 40 ft. level, which has been passing through a small branch of a cross-course during the week, is now in settled ground, and producing good ore, which we anticipate will yet improve. The adit level, on Mill lode, continues very promising, and in depth, we have no doubt, will be very productive, which our 30 ft. level cross-cut will prove; besides, the lode in the adjoining mine north, in the same channel, is good.”

**PENTIRE GLAZE.**—We have driven about 2 fms. in the cross-cut in the 22 ft. level, towards the intermediate lode, through a soft elvan, intersected by small branches of spar, lead, and copper, which, most probably, are branches running through the horse of ground between the two lodes, and at the point where they intersect the lodes will most likely enrich them. The lode in the 10 ft. level driving south is about 5 ft. wide, producing upwards of 2 tons of lead ore per fm.; there is pretty much copper mixed with the lead at present, which will cause a little more expense in dressing, but the lead unquestionably is of good quality. The boundary shaftmen are now sinking a winze under the north stopes in the 10 ft. level, on the course of the lode, which is upwards of 3 ft. wide, composed of gossan, prlan, and spar, with occasionally a little lead. The lode in the 23 ft. level, above adit, is much improved, being from 15 to 18 in. wide, yielding about 1 ton of ore per fm., of good quality. We shall clear the bottom level at South-hill on the 5th inst.

**PENZANCE CONSOLS.**—The agent has come up with a fine stone of tin. Elisha's lode is 24 ft. wide, with tin; and a good lode also in the 24 west. Other parts of the mine just as before.

**PRAED CONSOLS.**—It is very satisfactory to find that you are determined to work vigorously. I shall follow up your instructions as nearly as possible in those places where we are likely to meet with tin the soonest; and with that view I have put men to clear the north adit, and hope to get into the place where the tin goes down in a short time. The men have made but little progress in sinking this week, in consequence of the heavy rains, the water having flowed into the workings; but we have put in ladders and other things to carry it off, and they have again resumed their usual labours.

**SOUTH TAMAR CONSOLS.**—The engine-shaft has been divided, cased down, and made complete to the 124 ft. level. The 124 is extended 2 fms. 2 ft. 6 in. south of the shaft; for this distance the lode has produced 12 cwt. of ore per fm., and the end is equally good. The same level north is extended 1 fm. 1 ft., the lode worth 1 cwt. of ore per fm.—this end is less easy for driving than the south end; the shaftmen are set to drive 3 fms. more each way, and will then recommence sinking the shaft, and cut plat, &c. In the 112 south we have driven 8 fms. 0 ft. 6 in.; the lode is 4 ft. wide, very kind for driving, and worth 14 cwt. of ore per fathom. The north end has been extended 7 fms. 1 ft., lode on an average produced 9 cwt. of ore per fathom, and worth that in the present end. In the 100 south we have driven 2 fms. 5 ft., lode is easier for driving; it was set on setting day, worth 5 cwt. of ore per fm. In the north end, in the 100 ft. level, the lode is large, and moderately easy for driving, but rather poor, worth 5 or 6 cwt. of ore per fathom. In the 90 south the rise to the 80 is holed, and men resumed driving—lode 4 ft. wide, composed of a flur-spar, worth 10 cwt. of ore per fm., presenting highly encouraging indications; the distance driven in the last month is 2 fms. 5 ft. In the 80 south we have driven 8 fms. 0 ft. 6 in., excepting the men having completed the winze to the back of the 100, and resumed driving it. The 80 south has been extended 3 fms. 4 ft.—lode 3 ft. wide, worth 7 cwt. of ore per fm.; it presents the same appearance as in the 90, and is likely to increase in size and productiveness. All the winzes and rises mentioned in last report have been holed; the mine is thereby well ventilated throughout. The ground laid open last month is about 340 fms., and that taken away by tributaries 200 fms. The tribute department is in a very healthy state, and the several pitches are looking better than usual. The new stamps, engine, and machinery are nearly complete, but the floors are not so farward as we could wish, owing to the wet weather.

**SOUTH WHEAL TRELAWNY.**—We still continue driving on the 60 ft. level south with six men; the above level is extended south of shaft 23 fms. 2 ft. 2 in.—the ground is pretty favourable; the lode is 20 in. wide, composed of flooken, soft spar, mndic, kilias, and prlan; the end is also driving a good deal of water—more than ever I saw before—and on the whole there is a decided improvement.

**TRELAWNY.**—Trelawny shaft is sunk 7 fms. 5 ft. below the 92 ft. level, and the ground somewhat harder. In the 92 and north the lode is 34 ft. wide, and worth 92 ft. in the south end, at this level, the lode is 4 feet wide, and worth 71 ft. per fm. In the 82 and north the lode is 4 feet wide, and worth 161 ft. per fm. At the north mine, Smith's shaft is sunk 8 fms. below the 55 ft. level, and the ground is favourable. In the 55 and north the lode is 2 ft. wide, and worth 57 ft. per fm. In the 68 end, north of Trethane, the lode is 24 feet wide, and worth 97 ft. per fm.; in the winze in the bottom of this level the lode is 2 ft. wide, and worth 57 ft. per fm. There is no alteration in the stopes.

**TRELEIGH CONSOLS.**—Christie lode: In the 100 ft. level, west of Garden's shaft, the lode is 18 in. wide, with stones of ore. In the 90 ft. level, west of ditto, the lode is 3 ft. wide, worth 30l. per fm. In the winze below the 80 ft. level the lode is 18 in. wide, with stones of ore.—Parent lode: At Parent engine-shaft, below the 52 ft. level, we are sinking in the country. In the 30 ft. level, east of ditto, we are driving to cut the lode east of cross-course. Burgess shaft is holed to the adit level; the men are putting in ladder-rod and casing down the shaft, preparatory to sinking below adit.

**TRELOWETH.**—We have sunk the engine-shaft about 4 ft. since my last, and driven in the cross-cut 2 fms., daily expecting to intersect Penpol's lode; the distance is farther than was anticipated. The kilias is good for the production of copper ore.

**UNITED MINES (TAVISTOCK).**—The new boiler that is to be an auxiliary to the one at the pumping engine has arrived at the mine, and will be fixed in its proper position in a day or two. The other requisites are being proceeded with all possible dispatch, in order to commence the explorations in the different levels, as advised in my former report. There is not the slightest doubt of ultimate success, with a common-sense capital being employed to carry the proposed work into effect.

**WARLEGGAN CONSOLS.**—The lode in the adit end is 4 feet wide, mostly saving work. The shaftmen will commence sinking under the adit this afternoon (29th March). In consequence of the very severe weather for the greater part of the last fortnight the surface work has been greatly impeded, but I expect, if the weather proves favourable, to get out the wheel-pit by the end of another week.

**WEST PAR COSOLS.**—At Vounder's we are driving the 20 ft. level, east of Floyd's shaft, by six men; the lode is 4 feet wide, and worth 71 ft. per fm. In the 12 ft. level, driving west of Brown's lode, by six men, the lode is about 2 ft. wide; from the tin in sight we may expect to raise a quantity of ore from this lode. We are stopping the back of the 12 fathom level east by six men, breaking good work. At Floyd's shaft the ground is very favourable. Sarah's shaft is last reported.

**WEST WHEAL JEWEL.**—In the 85 ft. level, west of Williams' cross-course, on Wheal Jewel lode, we still have to drive north about 8 ft. to communicate to the winze sunk below the 70 ft. level. In the 70 ft. level, west of Williams' cross-course, on the same lode, the lode not taken down in the past week—when last taken down worth 31 ft. per fm. The 57 ft. level, west of Hodge's cross-course, on Tolcarne tin lode, is worth 61 ft. per fm.; the stopes in the back of this level, on the same lode, are worth 30l. per fm.; the 57 ft. level, east of Hodge's cross-course, on the same lode, is worth 51 ft. per fm.; the shallow adit level, west of Tregoning's shaft, on the same lode, is worth 51 ft. per fm. The stopes in the bottom of the 12 ft. level, east of Tregoning's shaft, on Tolcarne tin lode, are worth 20l. per fm.; the stopes in the bottom of the same level, west of Tregoning's winze, on the same lode, are worth 24l. per fm.—these stopes are working on tribute.

**WEST WHEAL VIRGIN.**—We continue driving east and west from the engine-shaft, by six men; the lode in the east end has not been taken down since last report, but the appearance is as kindly as ever; it has been since we commenced driving; the lode in the western end is just as last reported, producing good stones of tin. We shall put our horse-wheel to work this week, and fix our plunger-lift, when this is completed we shall begin to return tin. The mine throughout looks exceedingly promising.

**WHEAL ADAMS.**—I beg to inform you that on Saturday and this day (March 31st) I have minutely inspected the different ends, stopes, &c., in this mine, and the following is my report on the different points in operation:—In the 72 ft. level the end has been driven this month 3 fms. 3 ft., and, although the lode has been large, it has produced but little ore, and the extreme end is worthless; we have, therefore, placed the men to cross-cut both east and west, to find a caunter part, and I trust a more productive lode than we now have. There must be another part either to the right or left, as the water in the 60 is not yet drained; immediately this is accomplished we shall commence rising and stopping the back. The winze in the 60 has a floor of mndic in the bottom, and is consequently not very productive of lead at the moment; the lode is large and underlaying 18 inches in a v. westerly. I fully anticipate an improvement in the course of a day or two—that is, immediately the lode resumes its regular underlay, for it cannot, I am sure, underlay much further west. The 72 north is in capels, and is hard; I calculate we are about 4 fms. to the west of the lode, as the end extending north of the old engine-shaft, in the 50, is in fine ground, and exceedingly congenial for lead. We shall cut through the flooken in the course of the week. The 40, north of the new engine-shaft, on the western silver-lead lode, is a decomposed elvan, with veins of lead, accompanied by jack; we expect to extend this level, opposite the old engine-shaft by the end of the present month, and the proposed cross-cut will throw great light on this part of your property. In the 40, north of the old engine-shaft, we have cross-cut the lode, which is 2 ft. wide, and, although it is not rich, it contains more lead than we have seen in any cross-cut in this level; indeed, the further north we go the better the lode

appears, and this is not strange, because we are getting out of the influence of the elvan course; the stopes in this level are producing good work—they are now turning out 15 cwt. of lead ore per fm. In the 28 we have as promising a lode as can be seen; it will produce 1 ton of lead per fm. of lead ore per fm. of lead ore per fm. Surely there is a copper lode before us—we will persevere and ascertain. I will report fully on the capabilities of the stopes in my next report. We sampled on Monday a parcel of lead ore, computed 50 tons, samples of which shall be forwarded to all the purchasers of lead ores. At Aller we have intersected several east and west branches of some promise, and have now reached a dyke traversing nearly east and west; we have left this and turned east, to cut the flooken of the lead lode. The manganese mine I have not yet seen since my return.

**WHEAL ARTHUR.**—The following is the substance of the report made by Capt. Lean and Trowen:—The above mine was worked 26 years ago to the depth of 80 fms. from surface, or 30 fms. below the adit level, on an east and west copper lode, which yielded about 10,000l. worth of that mineral, the principal part of which was raised above the adit level. The principal workings, and where the ore was found, were in close connection with a large cross-course, and about 150 fms. east and west of it, and as there are side lodes of great promise in the back, we should strongly recommend the same to be intersected by cross-cuts in the deep adit level, which can be done without the aid of steam-power; the ground being also moderate, great progress can be made in developing the same. No doubt these parallel lodes, when fully laid open, will be found productive each side of the cross-course, as the main lode was. One of these side lodes alluded to above is about 15 fms. south of the engine-shaft, which produced 23 tons of rich copper ore a few fathoms below the surface. A cross-cut is now being driven in the 20 ft. level to intersect it, on a north and south lead lode, 12 in. wide, a fair sample of which we took for 4 fms. in length, and had it carefully assayed—it was 70 per cent. for lead, and 150 ozs. of silver to the ton of lead, which is very satisfactory indeed. There are two advantages to be derived here, the first is the great chance there is in the lead and silver it will produce; and, secondly, it serves as a cross-course, north and south, to extend your levels to intersect the east and west copper lodes; the ground being so much softer than it is in the country, such advantages are rarely to be met with. There is also a large stream of water, which can be made available for working a large wheel for crushing and other purposes. Taking all the circumstances into consideration, you can work the mine very cheap; and we pronounce it to be a good speculation, and as such we would advise you to work it in downright earnest.

—March 29.—We have cut a lode 50 fms. south of the main lode, 10 feet wide, producing large rocks of gossan, more than two men can lift—we have two more lodes between this and the engine-shaft. There ought not to be any time lost in driving the cross-cut in the 50 ft. level to intersect this lode, as it is the most promising near the surface I ever saw. We have also discovered a branch of copper ore in the 20, about 4 in. wide, 6 fms. north of the engine-shaft. It appears to be a branch dropping from the north lode; if so, I think we may almost depend on cutting a good lode in a few fathoms more driving.

—April 1.—We are still opening on the back of the large gossan lode to prove the exact run and underlay—it is the finest lode I ever saw so near the surface. We also discovered a very kindly lode on Monday afternoon, about 20 fms. to the north of the great lode, producing very fine gossan impregnated with copper ore, which is very likely to prove productive at a deeper level. This last month we have driven 6 fms. 1 ft. in the 20 ft. level towards the north lode. I have set 3 fms. to drive, at 47 ft. per fathom, to cut the lode, and I hope we shall complete it by the end of this month. I think we are certain to have a good course of ore in some of these lodes.

**WHEAL AUGUSTA.**—In the 18 fathom level, east of the engine-shaft, the lode is 2 feet wide, with very good stones of tin; in the 18 fathom level, west of engine-shaft, the lode is 3 feet wide, and just as last reported. The engine-shaft is now 6 fms. 4 feet below the 18 ft. level—lode from 8 to 10 in. wide, with good stones of tin. In the 10 ft. level, east of the engine-shaft, we have a good course of tin; over this level we have a first-rate tribute pitch. On the whole, the mine is looking very promising.

**WHEAL CREBOR.**—The 12 ft. level, west of Cock's shaft, has intersected the cross-course, and we are now driving south on the western wall to intersect the lode, which is thought to be heaved a few feet. The lode up to the point of intersection is 24 ft. wide, composed of capels, mndic, peach, and a little ore. In the 20 cross-cut, south of the western wall, two branches have been met with, but are not yet sufficient to drive on. The rise in the back of the 54 is communicated with the 40; the lode for the first 8 fms. is a good course of ore, and the upper part, though less productive, is kindly, composed of capels, mndic, and stones of good-quality ore. The 54 is resumed driving and advanced 6 fms. west of the rise; the lode throughout this extent is 5 ft. wide, composed of capel, quartz, mndic, peach, prlan, and ore, and worth from 8l. to 12l. per fm. The lode in the present end is less productive, being disordered by a small cross-course; it is still kindly, containing peach, quartz, mndic, prlan, and black, grey, and yellow ore. The 40 has been driven through the cross-course, and the lode again met with on the western wall thereof; and although at present poor, is exceedingly kindly, containing peach, gossan, quartz, mndic, and prlan. In the 30 cross-cut, north-west of Gubbin's rise, no lode has yet been met with.

—April 2.—At our setting-day, on Saturday, the following bargains were taken:—The 54 end, west of cross-course, at Rundle's, by six men, at 31. 5s. per fm., for 3 fms. stent. The 40, west of cross-course, at Rundle's, by six men, at 31. 5s. per fm., for 3 fms. stent. The 12 end, on the south lode, at Cock's, by one man and one boy, at 31. 15s.; this end is driving under the cross-course, to cut the lode west of the same. The lodes in the ends look well. In the tribute department, a new pitch above the 54, west of the cross-course, at Rundle's, at 5s. in 17, by two men and two boys; the lode is worth about 15l. per fm. A pitch in the back of the 40, east of cross-course, at Rundle's, at 12s. 6d. in 17, by two men. A pitch above the 24, at Smith's, by two men and two boys, at 14s. in 17; this pitch will, by present appearances, turn out a great quantity of copper ore, very troublesome to get into good working order; the gumbles being upwards of 30 feet wide, and the stuff sunk to a great depth below, we are obliged to give a much higher tribute for it. During the last few dry days we have been enabled to make good progress in our dressing.

**WHEAL DORA.**—Our shears are in their place. We have set the wheel-pit to the shaftmen to excavate, who are doing so with all possible speed. The sawyers are busy cutting timber for the arms, buckets, &c., of the wheel. The axle and castings are on the ground, as also the pulleys and rods, and we shall commence fixing the same immediately. There will be no time lost in erecting the engine and putting it to work, and recommencing sinking the engine shaft. We are busy covering in the smith's shop. We have completed our costeaning from north to south through the sett, and have discovered and opened on seven splendid lodes, including the two caunter copper lodes, three east and west copper lodes, and two tin lodes of the most promising character. I believe the north copper lode in this mine to be the continuation west of the Phoenix mine, in the adjoining parish, and which is at this time so immensely rich. The two tin lodes are the continuance of those in the well-known Old Stow's Tin Mine, in the parish of Linkinhorne, and which has returned abundance of tin from time immemorial. The south copper lodes are supposed to be the continuance of the Marke Valley lodes.

**WHEAL GOLDEN CONSOLS.**—At Thorne's shaft, in the 77 fathom level north, the ground is good; the lode is small and poor at present, but we expect an improvement will take place in this level soon, as we shall, by driving a few fathoms, get under the ore ground gone down in the 70 ft. level; in the 77 fathom level south the ground is moderate; the lode is 18 in. wide, producing 18 cwt. of ore per fm., with indications of further improvements; in the stopes in the back of the 77 ft. level south the ground is good; the lode is 2 ft. wide, producing 1 ton of ore per fm.; in the stopes in the back of the 77 ft. level north the ground is good; the lode is 1 ft. wide, producing 4 cwt. of ore per fm. The winze sinking under the 60 ft. level north is communicated with the 70 ft. level. At the engine-shaft, in the 70 ft. level, south of the cross-cut, the ground is moderate; the lode is 2 ft. wide, producing 4 cwt. of ore per fathom. At Webb's shaft, the 60 ft. level south is suspended for the want of air, until the rise in the back is communicated with the 50 ft. level, which will be down in two or three days; in this rise the lode is 2 ft. wide, producing 17 cwt. of ore per fm. In the winze sinking under the 60 ft. level the ground is moderate; the lode is 2 ft. wide, producing 4 cwt. of ore per fm.; in the stopes in the back of the 60 ft. level the ground is moderate; the lode is 24 ft. wide, producing 9 cwt. of ore per fm. The tribute pitches are producing a fair quantity of ore. Sold on the 26th March 75 tons silver-lead ores, at 137. 5s. per ton, realising 993l. 15s.

**WHEAL HAMLYN.**—The end on the caunter lode is very kindly. We have more water than last week, which indicates that we are near the east and west lode. Last Monday Capt. Carpenter inspected this mine for some gentlemen, and was not a little surprised to see five such promising lodes, and especially when he saw the great caunter lode, which is 30 ft. wide, with so much lead proceeding from it, together with the abundance of greens, &c., such as he never saw in any mine previously.

**WHEAL LANGMAID.**—I have great pleasure in meeting you on this occasion, our prospects being of such a promising character, and I feel satisfied that before our next meeting I shall be able, from present appearances, to show you a good pile of work at surface. Since my last report we have sunk 3 fms. in the shaft, and are now down 26 fms. The cross-cut is driven east 7 fms. 3 ft., where we cut the lode, and have driven north on its course about 5 fms., the character of which, you will perceive from specimens produced to you, will be found to be flooken and spar, strongly impregnated with precious lead; and I wish with confidence assure you that the hopes before entertained have every appearance of being fully realised.

**WHEAL MARY ANN (LYNDRUM).**—The lode in the deep adit level, driving west, is 4 ft. wide, composed of spar, capel, prlan, peach, mndic, kilias, and good stones of ore. At times we are very sanguine with regard to the result of our operations here, as, from the general appearance of the lodes, it is considered by all hands it will be a good lasting mine. A new sett, taken to the east of us, commences on the 1st of April by a strong party. Price per fm. for driving on the copper lode, 4l. 1



**WHEAL RUSSELL.**—The lode in the cross-cut in the 48 fm. level, that we commenced driving east on last week, has considerably improved, it being now full 2 1/2 ft. turning out 1 1/2 ton of ore per fm.; this lode is very likely to be the greatest lode referred to in former reports. An improvement has also taken place in the end driving east on the first lode met with in the 48 cross-cut, being 1 ft. wide, producing excellent stones of ore. In driving north on the cross-course in the 48 fm. level, to the west of the engine-shaft, a rich lode of copper ore is still following on with the cross-course, which looks well for the lode on the opposite side. There is still a large lode, full 7 ft. wide, in the 37 fm. level, driving west from the engine-shaft, producing saving work; the water issuing from the present end is very powerful. No lode has been met with in driving north on the cross-course in the 37 fm. level, to the east of the engine-shaft, since last report. The great lode in the south part of the sett continues to produce good stones of ore. The pitches are much the same as when last reported. The sampling will take place at the appointed time, upwards of 45 tons.

**WHEAL TREMAYNE.**—In the boundary engine-shaft sinking under the 23 fm. level the branches are looking well, they are now worth 50¢ per fm.; in the 63, east of boundary, on the engine lode, the lode is 1 foot wide, worth 11¢ per fm.; in the same level driving east of boundary, on the south branches, the branches are worth 12¢ per fm.; ditto, west of flooken on the same branches, they are worth 15¢ per fm. In the winze sinking under the 53 fm. level, west of Allan's shaft, on the same branches, they are worth 14¢ per fm.; in Allan's shaft, sinking under the 53 fm. level, east of Allan's shaft, on Allan's branch, are well engaged stopping in the 53 fm. level, on the engine lode, to leave down water. At Madron's shaft, on the south lode, in the 70 fathom level cross-cut east, the ground is favourable for driving; ditto west the lode is 2 1/2 feet wide, worth 6¢ per fm. In the 20 fm. level, driving east of Williams' engine-shaft, on a new lode, the lode is 8 in. wide, producing stones of tin; the shaft sinking from surface, on the same lode, is down to the adit level, and we expect to see the lode shortly. At middle shaft, on the north lode, in the 10 fm. level west, the men are engaged driving by the side of the lode; as the lode is hard and poor we expect this level to be commencing with Chapman's shaft in a few days; in the adit level driving east of ditto, on a north lode, the lode is 6 in. wide, chiefly gossan; this level is suspended for the present, and the men are engaged driving a cross-cut in the 10 fathom level to cut the same lode, which will be accomplished in two or three months. Since our last report, we have reset our flat-rods to work on the south lode, and expect to have the water all in fork this week, and the men set to work. Our tribute department is looking much the same as it has for some time past.

**WHEAL UNY.**—The engine-shaft is now cased down and completed to the adit level; the winze-shaft is likewise completed. The difficulties experienced in clearing out the adit level are entirely surmounted, and it is expected in about a fortnight the adit will be entirely cleared up to the engine-shaft. We expect to purchase a 50-hp. cylinder steam-engine, but if the negotiations fail, a new one will be contracted for immediately. I have also to report that arrangements have been made with the tenant and proprietor to take the account house and outbuildings at a small rental, by which arrangement the adventurers will save a considerable sum of money. There is a little mine on the run of Wheal Uny lode, adjoining us, where they are raising very large quantities of tin, without a steam-engine or machinery. Once get our engine, and the water forked from the mine, and there is little doubt of our raising large quantities of ore.

**WHEAL VINCENT.**—Since last report there is not much alteration in our west end; the lode is about 15 in. wide, producing good work for tin, and the ground easy. We are getting on faster with our new engine-shaft since we have had easier ground.

#### FOREIGN MINES.

**LINEARES MINES.**—The following has been received from Mr. H. Thomas: *Lineares, March 22.*—There is a considerable improvement in the 55 fm. level driving east of San Antonio winze, the lode being at present worth from 4 to 5 tons per fm.; this end is now just under the stopes west of La Manca winze, from whence it has let down the water, so as to render it necessary to put an additional small lift of pumps (4 inch) in San Antonio. There will be about 7 fathoms more to reach the Tanteo, the deepest point reached by the old men, and also one of the richest. The water is not yet drained from this winze, but this may be soon expected. In the 55 fm. level driving west the lode is now worth 2 1/2 tons in a fm. In the 45 fm. level, east of Shaw's shaft, the lode is worth 3 tons in a fm. Our progress is rather slow in securing the workings in the 81 fm. level east. The lode in the bottom of this level, working on tribute, in advance of the 45 fm. level, is very good, and worth 6 tons in a fm. The engine-shaft is progressing very favourably, and will soon be communicated with the 45. We have set the shaft to sink under the 45 to four Englishmen, at 1600 reals per fm. Shaw's shaft is without any alteration. The clearing west of San Juan shaft, at the 17 and 45 fm. levels, is still proceeding. The tribute pitches continue without much alteration.

Weighed in this week (March 22), 29 tons. Total in stock, 785 tons 17 cwt.

#### ROYAL SANTIAGO MINES.

*Cobre, Feb. 24.*—Perseverancia.—Thompson's shaft is developed 7 fms. 3 ft. below the 22; the lode and branches are from 4 to 5 ft. wide, yielding 4 tons per fm.—strata soft greenstone, and easy to explore. West from shaft, in the 22, lode not quite so promising, it is from 2 to 3 ft. wide, yielding 3 tons per fm. In the winze and stopes between the 22 and 32 fm. levels we have encountered some heavy ground to the south, arising from the shattered state of the strata; this has rather impeded operations. East from shaft, in the 22, the lode and branches are from 7 to 8 ft. wide, in a disordered state, yielding 3 tons per fm. A communication is made with the winze below the 10. The lode and branches in the winze between the 22 and 32 are from 6 to 7 ft. wide, yielding 5 tons per fm. The lode in the stopes in the back of the 22 is as last reported. West from shaft, in the 10, the lode is improved, and the indications more favourable than hitherto. The cross-cut east from shaft, in the 10, is suspended. The winze east from shaft, between adit and 10 fm level is communicated, and the men placed to resume sinking the winze west from Taylor's shaft, between shallow and deep adit levels. Goldsmith's shaft is sunk 2 fms. below San David's adit, strata favourable, and easy to explore. *San Joaquin.*—Taylor's shaft is down 94 fms. below deep adit; the lode is 1 1/2 to 2 feet wide, yielding stones of ore, but not worth saving; the indications are favourable—strata compact and hard; the water continues to impede operations. There is no alteration in the cross-cut east from shaft, in deep adit level south, and for the present it is suspended, and the men placed to excavate east on the lode, in the same level, in order to effect a communication with the winze sinking below shallow adit. West from shaft, in shallow adit, the lode is promising. In the winze sinking west from shallow to deep adit, the lode is 5 ft. wide, composed of gossan and iron pyrites, interspersed with particles of grey and black oxide, but not worth saving—strata, dark greenstone, disseminated with siliceous. *Angela.*—East from shaft, at adit, there is a communication effected with the winze developed below shallow adit.

*Trinca.*—The lode in the winze west from shaft, sinking between 43 and 54 fm. levels is 3 to 4 ft. wide, yielding 4 tons of ore per fm. Our reason for suspending some of the operations has been from want of native miners, or negroes, none of which are to be had. The cholera has unfortunately made its appearance at Holguin, but from the precautions taken by the authorities at St. Jago, and the company's agents, in causing good ventilation to be made in the various miners' dwellings, &c., no danger is apprehended to the property of the company, or its labourers.

**AT DEVON CONSOLS NORTH** the appearances are most satisfactory. Mr. Jehu Hitchens states that eight men are at work on the backs of the lodes, and stones of yellow copper ore are taken up near the surface. The applications for shares are overwhelming, and not one fourth of the number sought for can be supplied.

From SPEARNE CONSOLS, dated the 2d inst., they report a good course of tin in the 116 fm. level end, going east.

**GRATIFYING TRIBUTE TO A MINE AGENT.**—Capt. Pill has received through the hands of Edward Way, Esq., a handsome large silver box and a purse, containing 100 guineas. The box has the following inscription:—"Presented by the adventurers of Perran St. George Mines, with 100 guineas, to Capt. Pill, of Perranzabuloe, in the county of Cornwall, as a token of their esteem for his integrity, ability, and perseverance as their agent, during a period of 17 years, 1851." These mines are a proof of what may be done by perseverance and practical ability; and this tribute to Capt. Pill has been justly deserved.

**BOILER EXPLOSIONS.**—During the inquest at Manchester, a good deal of dissatisfaction prevailed as to the supposed insufficiency in point of strength of many of the boilers recently constructed in the neighbourhood. It is a very general plan to give orders for boilers upon estimates which have previously been sought, and a practical man says that he has seen boilers constructed at 11s. 6d. to 12s. per cwt., which could not possibly be made of the proper iron for the purpose at less than 15s. or 16s. per cwt. It was stated that the plates could not be bought at less than 11s., and for the extra 6d. per cwt. the boiler was undertaken to be made, and carried a distance which would probably cost the maker 5l. or 6l. In these cases the temptation was to buy plates at 5s. or 6s., and these plates had been known to be of such inferior metal that they would not bend with the ordinary process of rolling.

#### MINING IN SOUTH AMERICA.

In the present scarcity of silver, the following extract from an article in the *Valparaiso Mercantile Reporter*, relative to the yield of the South American mines, may not be uninteresting:—

In the mining district of Tres Puntas 74 mines were being worked at the commencement of the past year, giving employment to 581 persons. The quantity of ores extracted was, in January, 554 cargoes (mule loads of 12 arrobas). In December the number of mines in work was 55, several having been abandoned; but these were affording employment to 629 men, and produced 985 cargoes of ore. In Chanarillo, the most important mineral district, the year opened with 75 mines, employing 1094 men, and produced in the first month 5598 quintals of ores. The returns for the last month give 115 mines in work, 1587 men, and a product of 9559 quintals. The district of San Antonio is the only one which shows a falling off, having produced 757 quintals at the beginning of the year, and only 408 at its close.

The article from which we quote gives us a further statement of the number of mines in that province; they are in all 587, of which 400 are silver mines, 42 produce copper, 10 gold, cobalt, and quicksilver, and five are coal mines. This statement affords a fair idea of the proportion in which these metals are to be found in this province, so far as it has already been explored. We have also an abstract of imports and exports. The amount imported of produce of the country is quoted at \$557,708, and of foreign products 56,244 packages, value not mentioned. The exports appear to have been as follows:—587,019 marks of bar silver; six marks of gold; 55,225 quintals bar copper; 25,818 quintals copper ores; 5299 quintals silver ores.

#### ACCIDENTS.

*Bridgeend.*—Jenkin Rees was killed at the Tondur Iron-Works by a fall of roof. *Northrup.*—3 Jones was killed by falling in the Talbach Pit, at the Plymouth Works. *Swidley.*—S. Edwards, a butty collar, at Russell's Hall Colliery, was killed by the breaking of the rope while descending the shaft. *Wedgeford.*—James Ball was killed by being struck by the fly-wheel of the engine at Ball Pick Colliery.

#### OUR EXPORT TRADE IN IRON.

DEFEAT OF THE AMERICAN PROTECTIONISTS CONSTRUED INTO VICTORY BY THE PRESIDENT OF THE BRITISH BOARD OF TRADE.

He (Mr. Labouchere) had seen in the newspapers an account of the proceedings which the hon. gentleman (Mr. Booker's) question referred; and he had no reason to doubt the correctness of that statement!—(Mr. Labouchere's speech, see Times' report, March 28th.)

Admitting that in some departments of the British iron trade a much more healthy tone prevails now than some months ago, still no one can affirm that its condition is so vigorous as to render it proof not only against the actual effects of existing high duties abroad, but against the sinister influence of false alarms and mistakes, relating to the enhancement of foreign tariffs. It was, therefore, with no less regret than surprise that people read in the morning journals of last Friday the above statement from the lips of the President of the Board of Trade, who, at any rate, might be presumed to be in possession of his subject, whatever latitude is accorded to his questioner, who seems to have been misled by some Protectionist friend, or else by the *Standard*, in whose columns we first observed the erroneous conclusion that a higher tariff had passed Congress on the 25th February last.

We repeat, that it is no marvel to find the hon. Member for Herefordshire quoting the organ that is ever and anon engaged in sounding his trumpet. We all know that "love begets love," and experience tells us, too, that "Un sot trouve toujours un plus sot qui l'admire." On a converse principle, the *Standard* echoes the wisdom of Protectionist speakers, and they again re-echo the *Standard*; but, for our own parts, we must confess that ever since the astute journal in question alleged, with all the naïveté imaginable, in the summer of 1841, that "England would be as great and powerful, and all useful Englishmen would be as rich as they are, though one common ruin should engulf all the manufacturing towns, and districts of Great Britain," we have not felt inclined to repose an unquestioning faith in either its statements or inferences upon commercial matters. Allowing this to pass, however, let us inquire—Is it either reputable or justifiable in a free-trade Minister to lend, even for one moment, or through ignorance of what was patent to every American merchant in the city, the colour of his authority to the Protectionist mare's-nest, discovered or propounded in the House by the new Member for Herefordshire? If it be so, then in future it will be competent to any Protectionist wiseacre to rise in his place in Parliament and ejaculate with impunity any unfounded assertion which his imagination may suggest, or of which "the wish may be father to the thought." We must declare the old canon—"Index damnatur cum nocens absolvitur"—to be an arbitrary one, if Mr. Labouchere is to be held innocent for endorsing, when he should have contradicted, the erroneous statement of Mr. Booker regarding the position of the tariff question before Congress.

Now for the facts of the case; and we challenge contradiction when we aver that the United States' tariff of 1846 remains intact; and that all efforts to levy increased duties, *per se*, on foreign imports last session proved miserably abortive in the House of Representatives. We could a tale unfold regarding the trickery, the intrigue, and the unscrupulous means resorted to by the Protectionist minority in America to bring about such an unnatural consummation as is represented to have taken place; but we forbear, since it suffices for our purpose to learn with infinite satisfaction that, through the efforts made to enlighten the public mind, the great principle has been recognised and asserted by the intelligence of our trans-Atlantic cousins, that "protection" means, in the aphoristic language of Col. Thompson, only "robbing somebody else."

Happily, the only witnesses that need be called, to show that no alteration has taken place in the American duties, are those maintaining Protectionist opinions. What, then, do we find them asserting, in relation to the results of the attempts of last session, to smuggle a high tariff through Congress? Why, on the 25th February—the very day, be it observed, on which, according to Mr. Booker, a majority of 127 to 54 carried the increased tariff—the Washington correspondent of the *New York Courier*, a daily Protectionist print, writing from the heart and seat of the strife, thus expresses himself:—

*Washington, Feb. 25.*—There was an attempt to renew the proposition to modify the tariff; but regret to say it failed, as all previous efforts had done. Mr. Grinnell moved Mr. Hunter's bill for the Prevention of Frauds, intending, if it was carried, to tack on the modification of the tariff to which the manufacturing interests had agreed; but the chairman decided it to be out of order, and was sustained on a division by a majority of five. Mr. Stevens, of Pennsylvania, introduced a tariff of his own, that soon met with a similar fate. Mr. Grinnell presented the Walker tariff scheme, and was met at the start with the adverse judgment of the Chair. He did not deem it necessary to ask for tellers in face of two defeats.

Then, again, the same journal on the same day, in a leader, thus confirms and deplores, in its own absurd way (*risum tenetis*), the statement of its reporter in Congress:—

The sins of omission have been innumerable. First and foremost among these is the neglect to modify the tariff, so as to make the duties on imports specific, instead of *ad valorem*. The consequences of this neglect will be another year of excessive importation; the closing of the few blast-furnaces still in existence. \* \* \* Meantime, British iron, and manufactures of every description, will continue to flood the country. The country asked not for prohibition, but for competition. It asked not even an increase of existing duties, but sought merely prohibition against the *pauper labour of Europe*, &c.; but this reasonable request has been refused by the loco-foco opposition.

Can any thing further be required to make good our demonstration that both parties were wrong in giving it forth, to the detriment of British iron and coal interests, last week, that America had increased her already high duty of 30 per cent. on these commodities? Surely the above is sufficiently damning proof to satisfy all, except the parties who are bent on upholding a commercial policy that must prove suicidal.

If more evidence of what has been advanced be asked for, we may here refer to a letter, from Gen. Bayly, chairman of Committee on Ways and Means, pointing out how (high tariff projects failing) efforts were being made to warp and strain another measure, having another object (we allude to Mr. Hunter's bill), into meaning more protection. In addressing the *Richmond Enquirer*, this gentleman says:—

The article from the *Times* is full of errors, as is so much of your article as is based upon its statements, and those in which you say the northern papers agree. I have not time to correct them in detail, which I regret, as I find the law makes no change whatever in the tariff of 1846, as construed and administered from the period of its enactment down to the late decision of the Supreme Court, by Mr. Polk's, General Taylor's, and the present administration. As you correctly remark in the first paragraph of your article, "the bill ratifies and enacts the Treasury circulars, and re-establishes" the tariff of '46, as understood by its framers. It meets the acceptance of the Supreme Court, which put a construction upon the tariff of '46 in conflict with the construction which has prevailed at the Treasury. It does that, and it does no more, except to authorise the appointment of appraisers at large. The appointment of them was necessary to produce that uniformity in the duties levied in the several ports which is required by the Constitution."

The controversy still rages in America, as to the practical working of this measure; but it appears clear that levying duty on freight—the rates of which, of course, vary in the several ports—is unconstitutional; for the 8th section of the 1st article of the Constitution of the United States provides that "all duties, imposts, and excises, shall be uniform throughout the United States." Presuming the appraisement of duty, then, to include the freight, in addition to the cost, duty must fluctuate with the rates of freight, which from this country are double or treble to California what they are to New York—hence a uniform duty would be impossible. But all speculation upon this question will be speedily set at rest by a decision in the American courts of law, as will be seen from the following observations in elucidation of this subject, which appear in a letter, dated Boston, March 18th, published in the *Manchester Guardian* of Wednesday last, than which nothing can be more to the point in hand:—

I am induced to recur to the subject of the new Appraisement Bill, which has undergone considerable discussion in our commercial circles since the sailing of the *Europa*, by the perusal of the following extract from a Washington letter, which appeared in the *Philadelphia Bulletin*, one of the Pennsylvania organs of the Administration:—"The chief question raised is, whether duties under this Bill are to be charged upon freight. The words so clearly imply that the valuation includes 'all costs and charges' up to the period of appraisement, that none but interested parties and their counsel could have ever dreamed of any other interpretation. I do not suppose that Mr. Corwin has a doubt about this being the true construction; indeed, while the bill was pending, I knew this opinion was entertained in the department, and I cannot believe it has undergone any change." Be it so; but let me examine the practical effect of such interpretation upon the manufacturing interests of the United States. It will be recollected that, at the commencement of the late congressional session, President Fillmore and Mr. Corwin laid down the following axiom in this annual message:—"It is also important that an unfortunate provision in the present tariff, which imposes a much higher duty upon the raw material that enters into our manufactures than upon the manufactured article, should be remedied." The construction, adding the freight, then, to the cost of raw materials, would be in direct opposition to the axiom enunciated by the President last December, because the freight charges on the import value of manufactured goods and raw materials are not at an equal ratio. They are universally so, rather than otherwise, and would add materially to the cost of such articles as raw silk, hemp, wool, hides, sugar, molasses, mahogany, rags, saltpetre, dyewoods, dyestuffs, indigo, linseed, copper, tin, the imports of which last year amounted to nearly \$50,000,000, and the greater portion of these at high freight, from the most distant portions of the world. In some cases the construction of the Act would amount to a tax upon the value of the article equal to its original cost, and in several others to an addition of 30 to 50 per cent. The Bay State mills, for instance, use none other than foreign wools—these they obtain chiefly from America. Add 30 per cent. of freight charges, the present rate of duty on foreign manufactured woollens, and submit their dyewoods, indigo, and cochineal to the same process of adul-

tional impost as to their present duties, and the tariff of 1851 is a less restrictive one upon Yorkshire goods than that of 1846—in fact, the construction would be ruinous to nearly every manufacturing interest in the United States, except the manufacturers of the wool, of course, benefit the latter. The protectionists of this neighbourhood are well nigh unanimously opposed to adding freight to importations. I may say that, in the event of Mr. Corwin issuing his treasury circular to the collectors of the various ports, instructing them to include freight as costs and charges, an extensive firm engaged in the manufacture of locomotives in this city, and who use large quantities of Low Moor iron, will pay the duty under protest on their first importation, and test the question in the next Massachusetts Circuit Court. I may also state that we have precedent against the above interpretation of the Appraisement Bill, freight being excluded from valuation under all previous tariffs. I have carefully perused the speech of Mr. Hunter, the chairman of the Senate Committee of Finance, and there is nothing in it warranting the assumption that any other change was intended to be made than the valuation of the goods at the time of shipment, instead of at the time of purchase, the latter mode of valuation being admitted by far more open to the commission of fraud than the former one.

#### LATEST CURRENT PRICES OF METALS.

LONDON, APRIL 4, 1851.

ENGLISH IRON. <i>a</i>		per ton.
Bar, bolt, & square, London.	45	5 0 10
Nail rods	6	2 6 15
Hoops	7	0 7 15
Sheets (single)	12	6 8 5 0
Bars, at Cardiff & Newport.	4	15 6 17 6
Refined metal, Wales*	3	10 3 15
Do. anthracite*	3	10 0
Pigs in Wales	3	0 0 15
Do., do., forged	2	5 0 2 10
Do., No. 1, Clyde	2	1 0 2 2
Blowitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3	10 0
Do., do., for tin-plates, boiler plates, &c., ditto	4	10 0
Stirling's Patent in Glasgow	2	15 0
Toughened Pigs in Wales	3	10 3 15
Staffordshire bars, at the works	5	5 6 0 0
Rails	5	0 0 7 6
Chairs (Clyde)	4	0 0 0
FOREIGN IRON. <i>b</i>		
Swedish	11	10 0 12 0
CCND	17	10 0
PSI	—	—
Gouriff	—	—
Archangel	—	—
FOREIGN STEEL. <i>c</i>		
Swedish keg	15	0 0 15 10
Ditto faggot	15	0 0 15 15
ENGLISH COPPER. <i>d</i>		
Sheets, sheathing, & bolts, p. lb.	0	0 9 1/2
Tough cake	—	per ton 84 0 0
Terms.— <i>a</i> , 6 months, or 2 1/2 per cent. dis.; <i>b</i> , ditto; <i>c</i> , ditto; <i>d</i> , 6 months, or 3 per cent. dis.; <i>e</i> , 6 months, or 2 1/2 per cent. dis.; <i>f</i> , ditto; <i>g</i> , ditto; <i>h</i> , ditto; <i>i</i> , net cash; <i>j</i> , 6 months, or 3 p. ct. dis.; <i>m</i> , net cash; <i>n</i> , 3 months, or 1 1/2 p. c. dis.; <i>o</i> , ditto, 1 1/2 dis.; <i>p</i> , ditto, 1 1/2 dis.; <i>q</i> , ditto, 1 1/2 dis.; <i>r</i> , ditto, 1 1/2 dis.; <i>s</i> , ditto, 1 1/2 dis.; <i>t</i> , ditto, 1 1/2 dis.; <i>u</i> , ditto, 1 1/2 dis.; <i>v</i> , ditto, 1 1/2 dis.; <i>w</i> , ditto, 1 1/2 dis.; <i>x</i> , ditto, 1 1/2 dis.; <i>y</i> , ditto, 1 1/2 dis.; <i>z</i> , ditto, 1 1/2 dis.; <i>aa</i> , ditto, 1 1/2 dis.; <i>ab</i> , ditto, 1 1/2 dis.; <i>ac</i> , ditto, 1 1/2 dis.; <i>ad</i> , ditto, 1 1/2 dis.; <i>ae</i> , ditto, 1 1/2 dis.; <i>af</i> , ditto, 1 1/2 dis.; <i>ag</i> , ditto, 1 1/2 dis.; <i>ah</i> , ditto, 1 1/2 dis.; <i>ai</i> , ditto, 1 1/2 dis.; <i>aj</i> , ditto, 1 1/2 dis.; <i>ak</i> , ditto, 1 1/2 dis.; <i>al</i> , ditto, 1 1/2 dis.; <i>am</i> , ditto, 1 1/2 dis.; <i>an</i> , ditto, 1 1/2 dis.; <i>ao</i> , ditto, 1 1/2 dis.; <i>ap</i> , ditto, 1 1/2 dis.; <i>aq</i> , ditto, 1 1/2 dis.; <i>ar</i> , ditto, 1 1/2 dis.; <i>as</i> , ditto, 1 1/2 dis.; <i>at</i> , ditto, 1 1/2 dis.; <i>au</i> , ditto, 1 1/2 dis.; <i>av</i> , ditto, 1 1/2 dis.; <i>aw</i> , ditto, 1 1/2 dis.; <i>ax</i> , ditto, 1 1/2 dis.; <i>ay</i> , ditto, 1 1/2 dis.; <i>az</i> , ditto, 1 1/2 dis.; <i>ba</i> , ditto, 1 1/2 dis.; <i>bb</i> , ditto, 1 1/2 dis.; <i>bc</i> , ditto, 1 1/2 dis.; <i>bd</i> , ditto, 1 1/2 dis.; <i>be</i> , ditto, 1 1/2 dis.; <i>bf</i> , ditto, 1 1/2 dis.; <i>bg</i> , ditto, 1 1/2 dis.; <i>bh</i> , ditto, 1 1/2 dis.; <i>bi</i> , ditto, 1 1/2 dis.; <i>bj</i> , ditto, 1 1/2 dis.; <i>bk</i> , ditto, 1 1/2 dis.; <i>bl</i> , ditto, 1 1/2 dis.; <i>bm</i> , ditto, 1 1/2 dis.; <i>bn</i> , ditto, 1 1/2 dis.; <i>bo</i> , ditto, 1 1/2 dis.; <i>bp</i> , ditto, 1 1/2 dis.; <i>bq</i> , ditto, 1 1/2 dis.; <i>br</i> , ditto, 1 1/2 dis.; <i>bs</i> , ditto, 1 1/2 dis.; <i>bt</i> , ditto, 1 1/2 dis.; <i>bu</i> , ditto, 1 1/2 dis.; <i>bv</i> , ditto, 1 1/2 dis.; <i>bw</i> , ditto, 1 1/2 dis.; <i>bx</i> , ditto, 1 1/2 dis.; <i>by</i> , ditto, 1 1/2 dis.; <i>bz</i> , ditto, 1 1/2 dis.; <i>ca</i> , ditto, 1 1/2 dis.; <i>cb</i> , ditto, 1 1/2 dis.; <i>cc</i> , ditto, 1 1/2 dis.; <i>cd</i> , ditto, 1 1/2 dis.; <i>ce</i> , ditto, 1 1/2 dis.; <i>cf</i> , ditto, 1 1/2 dis.; <i>cg</i> , ditto, 1 1/2 dis.; <i>ch</i> , ditto, 1 1/2 dis.; <i>ci</i> , ditto, 1 1/2 dis.; <i>cj</i> , ditto, 1 1/2 dis.; <i>ck</i> , ditto, 1 1/2 dis.; <i>cl</i> , ditto, 1 1/2 dis.; <i>cm</i> , ditto, 1 1/2 dis.; <i>cn</i> , ditto, 1 1/2 dis.; <i>co</i> , ditto, 1 1/2 dis.; <i>cp</i> , ditto, 1 1/2 dis.; <i>cq</i> , ditto, 1 1/2 dis.; <i>cr</i> , ditto, 1 1/2 dis.; <i>cs</i> , ditto, 1 1/2 dis.; <i>ct</i> , ditto, 1 1/2 dis.; <i>cu</i> , ditto, 1 1/2 dis.; <i>cv</i> , ditto, 1 1/2 dis.; <i>cw</i> , ditto, 1 1/2 dis.; <i>cx</i> , ditto, 1 1/2 dis.; <i>cy</i> , ditto, 1 1/2 dis.; <i>cz</i> , ditto, 1 1/2 dis.; <i>da</i> , ditto, 1 1/2 dis.; <i>db</i> , ditto, 1 1/2 dis.; <i>dc</i> , ditto, 1 1/2 dis.; <i>dd</i> , ditto, 1 1/2 dis.; <i>de</i> , ditto, 1 1/2 dis.; <i>df</i> , ditto, 1 1/2 dis.; <i>dg</i> , ditto, 1 1/2 dis.; <i>dh</i> , ditto, 1 1/2 dis.; <i>di</i> , ditto, 1 1/2 dis.; <i>dj</i> , ditto, 1 1/2 dis.; <i>dk</i> , ditto, 1 1/2 dis.; <i>dl</i> , ditto, 1 1/2 dis.; <i>dm</i> , ditto, 1 1/2 dis.; <i>dn</i> , ditto, 1 1/2 dis.; <i>do</i> , ditto, 1 1/2 dis.; <i>dp</i> , ditto, 1 1/2 dis.; <i>dq</i> , ditto, 1 1/2 dis.; <i>dr</i> , ditto, 1 1/2 dis.; <i>ds</i> , ditto, 1 1/2 dis.; <i>dt</i> , ditto, 1 1/2 dis.; <i>du</i> , ditto, 1 1/2 dis.; <i>dv</i> , ditto, 1 1/2 dis.; <i>dw</i> , ditto, 1 1/2 dis.; <i>dx</i> , ditto, 1 1/2 dis.; <i>dy</i> , ditto, 1 1/2 dis.; <i>dz</i> , ditto, 1 1/2 dis.; <i>ea</i> , ditto, 1 1/2 dis.; <i>eb</i> , ditto, 1 1/2 dis.; <i>ec</i> , ditto, 1 1/2 dis.; <i>ed</i> , ditto, 1 1/2 dis.; <i>ee</i> , ditto, 1 1/2 dis.; <i>ef</i> , ditto, 1 1/2 dis.; <i>eg</i> , ditto, 1 1/2 dis.; <i>eh</i> , ditto, 1 1/2 dis.; <i>ei</i> , ditto, 1 1/2 dis.; <i>ej</i> , ditto, 1 1/2 dis.; <i>ek</i> , ditto, 1 1/2 dis.; <i>el</i> , ditto, 1 1/2 dis.; <i>em</i> , ditto, 1 1/2 dis.; <i>en</i> , ditto, 1 1/2 dis.; <i>eo</i> , ditto, 1 1/2 dis.; <i>ep</i> , ditto, 1 1/2 dis.; <i>eq</i> , ditto, 1 1/2 dis.; <i>er</i> , ditto, 1 1/2 dis.; <i>es</i> , ditto, 1 1/2 dis.; <i>et</i> , ditto, 1 1/2 dis.; <i>eu</i> , ditto, 1 1/2 dis.; <i>ev</i> , ditto, 1 1/2 dis.; <i>ew</i> , ditto, 1 1/2 dis.; <i>ex</i> , ditto, 1 1/2 dis.; <i>ey</i> , ditto, 1 1/2 dis.; <i>ez</i> , ditto, 1 1/2 dis.; <i>fa</i> , ditto, 1 1/2 dis.; <i>fb</i> , ditto, 1 1/2 dis.; <i>fc</i> , ditto, 1 1/2 dis.; <i>fd</i> , ditto, 1 1/2 dis.; <i>fe</i> , ditto, 1 1/2 dis.; <i>ff</i> , ditto, 1 1/2 dis.; <i>fg</i> , ditto, 1 1/2 dis.; <i>fh</i> , ditto, 1 1/2 dis.; <i>fi</i> , ditto, 1 1/2 dis.; <i>fj</i> , ditto, 1 1/2 dis.; <i>fk</i> , ditto, 1 1/2 dis.; <i>fl</i> , ditto, 1 1/2 dis.; <i>fm</i> , ditto, 1 1/2 dis.; <i>fn</i> , ditto, 1 1/2 dis.; <i>fo</i> , ditto, 1 1/2 dis.; <i>fp</i> , ditto, 1 1/2 dis.; <i>fq</i> , ditto, 1 1/2 dis.; <i>fr</i> , ditto, 1 1/2 dis.; <i>fs</i> , ditto, 1 1/2 dis.; <i>ft</i> , ditto, 1 1/2 dis.; <i>fu</i> , ditto, 1 1/2 dis.; <i>fv</i> , ditto, 1 1/2 dis.; <i>fw</i> , ditto, 1 1/2 dis.; <i>fx</i> , ditto, 1 1/2 dis.; <i>fy</i> , ditto, 1 1/2 dis.; <i>fz</i> , ditto, 1 1/2 dis.; <i>ga</i> , ditto, 1 1/2 dis.; <i>gb</i> , ditto, 1 1/2 dis.; <i>gc</i> , ditto, 1 1/2 dis.; <i>gd</i> , ditto, 1 1/2 dis.; <i>ge</i> , ditto, 1 1/2 dis.; <i>gf</i> , ditto, 1 1/2 dis.; <i>gg</i> , ditto, 1 1/2 dis.; <i>gh</i> , ditto, 1 1/2 dis.; <i>gi</i> , ditto, 1 1/2 dis.; <i>gj</i> , ditto, 1 1/2 dis.; <i>gk</i> , ditto, 1 1/2 dis.; <i>gl</i> , ditto, 1 1/2 dis.; <i>gm</i> , ditto, 1 1/2 dis.; <i>gn</i> , ditto, 1 1/2 dis.; <i>go</i> , ditto, 1 1/2 dis.; <i>gp</i> , ditto, 1 1/2 dis.; <i>gq</i> , ditto, 1 1/2 dis.; <i>gr</i> , ditto, 1 1/2 dis.; <i>gs</i> , ditto, 1 1/2 dis.; <i>gt</i> , ditto, 1 1/2 dis.; <i>gu</i> , ditto, 1 1/2 dis.; <i>gv</i> , ditto, 1 1/2 dis.; <i>gw</i> , ditto, 1 1/2 dis.; <i>gx</i> , ditto, 1 1/2 dis.; <i>gy</i> , ditto, 1 1/2 dis.; <i>gz</i> , ditto, 1 1/2 dis.; <i>ha</i> , ditto, 1 1/2 dis.; <i>hb</i> , ditto, 1 1/2 dis.; <i>hc</i> , ditto, 1 1/2 dis.; <i>hd</i> , ditto, 1 1/2 dis.; <i>he</i> , ditto, 1 1/2 dis.; <i>hf</i> , ditto, 1 1/2 dis.; <i>hg</i> , ditto, 1 1/2 dis.; <i>hh</i> , ditto, 1 1/2 dis.; <i>hi</i> , ditto, 1 1/2 dis.; <i>hj</i> , ditto, 1 1/2 dis.; <i>hk</i> , ditto, 1 1/2 dis.; <i>hl</i> , ditto, 1 1/2 dis.; <i>hm</i> , ditto, 1 1/2 dis.; <i>hn</i> , ditto, 1 1/2 dis.; <i>ho</i> , ditto, 1 1/2 dis.; <i>hp</i> , ditto, 1 1/2 dis.; <i>hq</i> , ditto, 1 1/2 dis.; <i>hr</i> , ditto, 1 1/2 dis.; <i>hs</i> , ditto, 1 1/2 dis.; <i>ht</i> , ditto, 1 1/2 dis.; <i>hu</i> , ditto, 1 1/2 dis.; <i>hv</i> , ditto, 1 1/2 dis.; <i>hw</i> , ditto, 1 1/2 dis.; <i>hx</i> , ditto, 1 1/2 dis.; <i>hy</i> , ditto, 1 1/2 dis.; <i>hz</i> , ditto, 1 1/2 dis.; <i>ia</i> , ditto, 1 1/2 dis.; <i>ib</i> , ditto, 1 1/2 dis.; <i>ic</i> , ditto, 1 1/2 dis.; <i>id</i> , ditto, 1 1/2 dis.; <i>ie</i> , ditto, 1 1/2 dis.; <i>if</i> , ditto, 1 1/2 dis.; <i>ig</i> , ditto, 1 1/2 dis.; <i>ih</i> , ditto, 1 1/2 dis.; <i>ii</i> , ditto, 1 1/2 dis.; <i>ij</i> , ditto, 1 1/2 dis.; <i>ik</i> , ditto, 1 1/2 dis.; <i>il</i> , ditto, 1 1/2 dis.; <i>im</i> , ditto, 1 1/2 dis.; <i>in</i> , ditto, 1 1/2 dis.; <i>io</i> , ditto, 1 1/2 dis.; <i>ip</i> , ditto, 1 1/2 dis.; <i>iq</i> , ditto, 1 1/2 dis.; <i>ir</i> , ditto, 1 1/2 dis.; <i>is</i> , ditto, 1 1/2 dis.; <i>it</i> , ditto, 1 1/2 dis.; <i>iu</i> , ditto, 1 1/2 dis.; <i>iv</i> , ditto, 1 1/2 dis.; <i>iw</i> , ditto, 1 1/2 dis.; <i>ix</i> , ditto, 1 1/2 dis.; <i>iy</i> , ditto, 1 1/2 dis.; <i>iz</i> , ditto, 1 1/2 dis.; <i>ja</i> , ditto, 1 1/2 dis.; <i>jb</i> , ditto, 1 1/2 dis.; <i>jc</i> , ditto, 1 1/2 dis.; <i>jd</i> , ditto, 1 1/2 dis.; <i>je</i> , ditto, 1 1/2 dis.; <i>jf</i> , ditto, 1 1/2 dis.; <i>jj</i> , ditto, 1 1/2 dis.; <i>jh</i> , ditto, 1 1/2 dis.; <i>ji</i> , ditto, 1 1/2 dis.; <i>jj</i> , ditto, 1 1/2 dis.; <i>jk</i> , ditto, 1 1/2 dis.; <i>jl</i> , ditto, 1 1/2 dis.; <i>jm</i> , ditto, 1 1/2 dis.; <i>jn</i> , ditto, 1 1/2 dis.; <i>jo</i> , ditto, 1 1/2 dis.; <i>jp</i> , ditto, 1 1/2 dis.; <i>jq</i> , ditto, 1 1/2 dis.; <i>jr</i> , ditto, 1 1/2 dis.; <i>js</i> , ditto, 1 1/2 dis.; <i>jt</i> , ditto, 1 1/2 dis.; <i>ju</i> , ditto, 1 1/2 dis.; <i>jv</i> , ditto, 1 1/2 dis.; <i>jw</i> , ditto, 1 1/2 dis.; <i>jx</i> , ditto, 1 1/2 dis.; <i>ji</i> , ditto, 1 1/2 dis.; <i>jj</i> , ditto, 1 1/2 dis.; <i>jk</i> , ditto, 1 1/2 dis.; <i>jl</i> , ditto, 1 1/2 dis.; <i>jm</i> , ditto, 1 1/2 dis.; <i>jn</i> , ditto, 1 1/2 dis.; <i>jo</i> , ditto, 1 1/2 dis.; <i>jp</i> , ditto, 1 1/2 dis.; <i>jq</i> , ditto, 1 1/2 dis.; <i>jr</i> , ditto, 1 1/2 dis.; <i>js</i> , ditto, 1 1/2 dis.; <i>jt</i> , ditto, 1 1/2 dis.; <i>ju</i> , ditto, 1 1/2 dis.; <i>jv</i> , ditto, 1 1/2 dis.; <i>jw</i> , ditto, 1 1/2 dis.; <i>jx</i> , ditto, 1 1/2 dis.; <i>ja</i> , ditto, 1 1/2 dis.; <i>jb</i> , ditto, 1 1/2 dis.; <i>jc</i> , ditto, 1 1/2 dis.; <i>jd</i> , ditto, 1 1/2 dis.; <i>je</i> , ditto, 1 1/2 dis.; <i>jf</i> , ditto, 1 1/2 dis.; <i>jj</i> , ditto, 1 1/2 dis.; <i>jh</i> , ditto, 1 1/2 dis.; <i>ji</i> , ditto, 1 1/2 dis.; <i>jj</i> , ditto, 1 1/2 dis.; <i>jk</i> , ditto, 1 1/2 dis.; <i>jl</i> , ditto, 1 1/2 dis.; <i>jm</i> , ditto, 1 1/2 dis.; <i>jn</i> , ditto, 1 1/2 dis.; <i>jo</i> , ditto, 1 1/2 dis.; <i>jp</i> , ditto, 1 1/2 dis.; <i>jq</i> , ditto, 1 1/2 dis.; <i>jr</i> , ditto, 1 1/2 dis.; <i>js</i> , ditto, 1 1/2 dis.; <i>jt</i> , ditto, 1 1/2 dis.; <i>ju</i> , ditto, 1 1/2 dis.; <i>jv</i> , ditto, 1 1/2 dis.; <i>jw</i> , ditto, 1 1/2 dis.; <i>jx</i> , ditto, 1 1/2 dis.; <i>ja</i> , ditto, 1 1/2 dis.; <i>jb</i> , ditto, 1 1/2 dis.; <i>jc</i> , ditto, 1 1/2 dis.; <i>jd</i> , ditto, 1 1/2 dis.; <i>je</i> , ditto, 1 1/2 dis.; <i>jf</i> , ditto, 1 1/2 dis.; <i>jj</i> , ditto, 1 1/2 dis.; <i>jh</i> , ditto, 1 1/2 dis.; <i>ji</i> , ditto, 1 1/2 dis.; 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## Current Prices of Stocks, Shares, &amp; Metals.

**MINES.**—There have again this week been some fluctuations in the value of dividend shares, but they are, generally, of the upward character, and considerable eagerness has been exhibited to possess certain shares, in consequence of great improvements in the respective lodes. We have also to notice that the accounts from both the eastern district (including Devon) and the western portions of Cornwall are gratifying, as showing the advantages attending the continuous application of capital and mining skill, where the ground is of an unquestionably congenial character for the production of ores, thus encouraging to unlimited perseverance. It is useless, we fear, to remark on the new schemes continuing to be absorbed by the influence of the Stock Exchange, at ten times beyond their real value, including the heavy premiums obtained, but a cure for such evils must come sooner or later, when expectant dividends will probably be answered by demands for additional capital.

In the Metal Market, a fall of 4s. per ton has taken place in English Tin, and a consequent decline in Foreign, with very little business.—Lead has a good consumptive demand.—Copper very brisk, and steady in price.—In Tin Plates, the quantity offering for sale being large, and principally in second hands, prices are easier: the demand, however, continues extensive.

The returns of the sales of copper ore by public ticketing in Cornwall for the three months ended 31st March, show the amount to be 36,860 tons of ore, producing 2897 tons of fine copper, and with an average price of 5s. 4s. 4d. on a produce of 7-859 per cent., realising the sum of 192,274l. 11s. 4d., being a decrease both on the previous quarter and on the corresponding one of 1850. The sales at Swansea also show a considerable decrease on the previous quarter; they amounted to 8898 tons, and, at an average price of 12s. 7s. 1d. per ton, realised 109,946l. 12s. 6d., being a decrease of 245 tons, and 4158l. 15s. in money. For the full particulars, as also for those of lead and tin, we refer to the returns themselves, in another column.

In another column will be found the list of dividends declared during the month of March, amounting to 32,954l. 10s., showing a considerable increase. This is very satisfactory, and we invite attention to it, as well as that of calls during the same period. These calls, we may remark, in many instances, are for the express purpose of erecting steam and other machinery for giving the mines a speedy and fair trial. We trust they may prove successful, and enable us to add to our list of dividend-paying mines at no distant period. In the shares of such mines, as we have before remarked, considerable transactions have taken place, and in most at advanced rates. The tone of the market is decidedly healthy, and the payment of quarterly dividends at the Bank next week will render money easier, doubtless bringing a portion to operate in the mining share market. All we need do is to caution parties from embarking in any new scheme of doubtful character: we feel assured that they will then find that legitimate mining offers equally as fair and safe a chance of remuneration as any other of a speculative nature.

We regret to observe a tendency to convert the mineral wealth of Ireland into a source of wild speculation, rather than that sober and steady exploration which its importance deserves, and which there is every reason to believe would prove eminently prosperous. A prospectus has just been issued by an embryo company for the working of a mineral estate in one of the south-western counties, and from many years' acquaintance with the property, and the results which followed the working by a former company, we have no hesitation in saying the large capital proposed to be raised is preposterous, and on a system which we have before deprecated as inconsistent with legitimate mining. It is currently rumoured that the said Railway King is inclining to mining speculation, and that this scheme is under his patronage and influence. We trust that fate will not attend his followers in the present instance which, under his auspices in railway matters, so many have had awful reason to lament.

We understand, from our correspondent, "Argus," of Truro, that it is confidently asserted in the mining district that a negotiation for the purchase of the United Mines, in Gwennap, has been concluded, through the instrumentality of Mr. F. Pryor. This will ensure the continuance of the workings at Great Consols, and the other mines alluded to by "Argus" in his three communications upon that subject, published in our columns during the last five weeks, and thus far prove that his early conjectures were correct on this important matter.

Among the arrivals at Swansea have been 2070 tons of copper ore from Cuba; 120 tons of copper ore, 217 tons of regulus, and 63 tons manufactured (cake) copper, from Valparaiso.

The Roughton Lead Mine (Cumberland) has delivered to the smelting-works 58 tons 4 cwt. of ore.

Wheal Golden Consols sold, on the 26th March, 75 tons of silver-lead ores, at 13s. 5s. per ton, realising 993l. 15s.

The Foxdale Mines (Isle of Man) sold 90 tons of lead ore, at 12s. 13s. The Lisburne Mines sold at Aberystwith, on the 31st March, 100 tons of lead ore, at 12s. 6d. (1202l. 10s.), and 80 tons at 11s. 8s. (912l.): total, 2114l. 10s.

Rhoswyddol Mine sold 6 tons of silver-lead ore, at 10s. 8s. per ton. Dyffrynwm sold 16 tons of silver-lead ore, at 10s. 18s. 6d. per ton. Cairnmore sold 40 tons of silver-lead ore, at 11s. 3s. 6d. per ton.

A great improvement has taken place in Exmoor Wheal Eliza. From the Alport Mines some indications of improvement are reported in two or three of the works of trial—a sink on the New Year's Gift vein, the 8 ft. level on the Milking-place vein, and the 5 ft. level on Amos Cross vein. About 30 tons of lead ore have been sampled.

In Camborne Consols we learn there is an improvement in the 10 ft. level east and 20 ft. level west, in Mr. Pendarves' ground.

At the Callington Mines the rise in the back of the 70 fathom level, on Kelly Bray's lode, will turn out 5 tons of copper ore per fm.

Mr. Percival Johnson having had a large stone from the discovery in the 84 ft. level at Great Polgoth, reports:—"I consider the whole, rough as it is, would give about 15 to 20 per cent. of white tin, which is good enough, and a more congenial matrix for tin I have seldom seen. The tin in the stone also appears a very superior quality for mine tin. I congratulate those interested."

An advance in the price of Alfred Consols within the last few days from 16s. to 17s. 10s. and 18s. buyers, at Hull and elsewhere, has caused sellers to be shy—price now asking is 19s., owing to the cheering prospects they already have in the 80 ft. level. This advance has had the effect of sending on West Alfred from 20s. to 23s., the price now named by the seller. Higher figures are asked for Tremaynes.

In our last we alluded to some differences that had sprung up amongst the Wheal Tremar adventurers, but which, we are happy to say, are now completely adjusted; and, under the guidance of the able committee appointed at the general meeting, there is no doubt the development of this mine will proceed with vigour and economy, and that the cost-book will be strictly adhered to in recording the monthly expenditure, and in laying the accounts before the adventurers every two months.

At Wheal Basset meeting, on Tuesday, the accounts showed—Copper ore sold, Jan. and Feb., 5548l. 13s. 10d.; tin ore, 886l. 2s. 4d. (less dues, 1-15th, 428l. 19s. 9d.) = 6005l. 16s. 5d.—Labour cost for January and February, 2191l. 7s.; merchants' bills, 754l. 12s. 3d.; leaves a profit of 3149l. 17s. 2d.; add balance in hand, at last account, 584l. 16s. 6d. = 8734l. 13s. 8d.; deduct dividend 10s. per share (2560l.), leaves the sum of 1174l. 13s. 8d. to next account. Resolutions were entered into for working the south ground forthwith, and that tenders for a 36-in. cylinder engine be obtained immediately. John Reed was appointed underground agent at 7l. 7s. per month, and Capt. James Juliff's salary increased to 8l. per month.

At Wheal Golden Consols meeting, at Barnstaple on the 28th March, Mr. J. D. Young (the purser) produced the accounts, showing—Balance at last meeting (after deducting the dividend of 1000l. paid in January), 2444l. 7s. 5d.; ores sold since, 1995l. 1s. 5d.;—2239l. 8s. 10d.—Monthly cost, including dues, 995l. 18s. 3d.; leaving balance in favour of company, 1243l. 10s. 7d. A second dividend of 1000l., or 5s. per share was declared.

At East Crowndale Mine, after cutting through the cross-course and elvan in the 50 ft. level, they have discovered a good bunch of tin, 3 ft. wide, and no south wall seen as yet. At the meeting, on Tuesday, the quarterly accounts to end Feb. were submitted, showing—Balance from last account, 962l. 14s. 11s.; mine cost and merchants' bills, 707l. 6s. 9d.; sundries, 74l. 6s. 5d.;—1744l. 8s. 1d.—By call, 1000l.; leaving balance against the mine, 744l. 8s. 1d. A call of 15s. per share was made.

At Wheal Langmaid meeting, on the 26th March, the accounts showed a balance in favour of the mine of 66l. 9s. 11d.; due on calls, 19l. 4s. = 85l. 13s. 11d. A call of 2s. per share was made.

At a meeting of Wheal Oak (Wendron), on the 25th March, a call of 5s. per share was made, to further prosecute the mine.

At United Mines meeting, held 29th March, the accounts showed—Balance from last account, 734l. 4s. 4d.; labour cost for Jan., 2325l. 14s. 11d.; ditto February, 3863l. 2s. 6d.;—6188l. 1s. 9d.—By ore money (after dues), 5109l. 2s. 5d.; tin ore, 311l. 8s. 5d.; lead ore, 25l. 17s. 1d.;—5466l. 7s. 11d.; leaves balance against mine, 1476l. 13s. 10d.; the loss on the two months being 742l. 9s. 6d.

At the Chyprase Consols monthly meeting, at Birmingham, on Wednesday, Capt. James Michell's report was deemed fully satisfactory of the prospects of the mine, which has also been confirmed by the statements of Mr. Henry Parrish, who has just returned from an inspection, to which he was dispatched by the committee at the last monthly meeting. The accounts were audited and paid.

At the South Dolcoath meeting, on the 25th March, reports were read from Capt. J. Puckey, Peter Floyd, and John Richards, who had been deputed to examine the mine: they state the levels westward generally to be poor, and recommend the driving east, which they consider the most desirable part of the sett, it being more immediately south of Carn Breahill, in a parallel direction between South Frances and Carn Breahill. The materials are estimated worth 1050l. The liabilities were found to be 2623l. 10s. 6d.; therefore, a call of 1l. per share was made, payable forthwith. Those shareholders in arrears of the call made 28th April are to be applied to for immediate payment, or the usual course will be taken for enforcing the same. The operations of the mine are limited to an expenditure of 80l. per month, until the next meeting.

At the Weston Lead Mines two-monthly meeting, on Tuesday, the accounts were examined and passed, showing—Balance last account, 10l.; calls, 97l. 10s. = 107l. 10s.—Mine cost, &c., 102l. 7s. 10d.; leaving balance in hand, 5l. 2s. 2d. The liabilities to the end of April were estimated at 206l. 7s. 7d.; to meet which there is the above balance, 5l. 2s. 2d.; arrears of calls, 118l.; call of 5s. made at the meeting, 175l.; which would leave balance in favour of adventurers of 91l. 14s. 7d. for next account. Mr. Adam Murray, jun., was appointed inspector of the mines.

At West Wheal Seton meeting, on Monday, the accounts for Jan. and Feb. showed—Mine cost for Jan., 360l. 1s.; Feb., 236l. 11s. 6d.; merchants' bills, 179l. 10s. 2d.;—776l. 2s. 8d.—By copper ore sold, Dec. 12 (less 1-15th dues), 546l. 6s. 1d.; overcharged on whim drawing, 11s. 2d.; leaves balance against the mine, 229l. 5s. 5d.; to which add balance last account, 200l. 16s. 10d.;—430l. 2s. 3d. A call of 2l. per share was made, which will amount to 400l., reducing the debt to 30l. 2s. 3d.

At Wheal Neptune meeting, on the 26th March, the accounts showed—Labour cost for five months ending February, 502l. 4s.; merchants' bills, 416l. 2s.; new 36-in. cylinder steam-engine, 700l. = 1618l. 6s. 10d.—By balance in hand end of Sept., 283l. 15s. 7d.; calls made, 28th Oct., 512l.; leaves balance against mine, 822l. 11s. 3d.—A call of 1l. per 1024th share was made.

At Tavy Consols meeting, at Stonehouse on Tuesday last, the accounts showed—Balance from last account, 125l. 4s. 9d.; labour cost for Jan., 164l. 9s. 4d.; Feb., 154l. 2s. 8d.; sundry bills, 34l. 13s. = 478l. 9s. 9d.—By ores sold, Dec., 87l. 5s. 1d.; Jan., 199l. 4s. 5d.; Feb., 99l. 19s.; leaving balance against the mine, 92l. 1s. 3d. The liabilities amount to 420l., and estimated assets, in ore, &c., sampled, 190l. A call of 10s. per share was made. The report of Capt. Goss states that he expects shortly to cut the lode in the 56 ft. level, and that he has commenced a cross cut north in the 24. In the tribute department four pitches are working, at an average tribute of 10s. 9d. in 1l., and 4s. per ton for the mundic.

At the Treloweth Mine meeting, on Tuesday, the accounts showed—Balance from last account, 962l. 14s. 11d.; call, 7th January, 1000l. = 1962l. 14s. 11d.—Labour cost, Dec., 112l. 16s. 10d.; Jan., 142l. 12s. 4d.; Feb., 101l. 8s. 6d.; merchants' bills, 350l. 9s. 1d.; mine leases, 36l. 15d.; office rent and salaries to end Feb., 30l.; stationery, &c., 7l. 11s. 5d.; leaving balance to next account, 744l. 8s. 1d. A call of 15s. was made.

At Wheal Trebarvah meeting, the accounts showed—Labour cost for five months ending Jan., 181l. 12s. 5d.; buildings and agency, 234l. 13s. 9d.; merchants' bills, 277l. 10s. 7d.; new steam-engine, 630l. = 1323l. 16s. 9d. (less call, 512l.); leaving balance to next account, 811l. 16s. 9d.

At the Bryn-Arian adjourned meeting, on Monday, the purser tendered his resignation, which was accepted, and Mr. J. A. Joseph appointed, with an allowance of 5l. 5s. per month for office expenses and salary. All shares upon which calls remained unpaid were forfeited, and in future, instead of certificates of shares, letters of registration, containing the rules and regulations of the company are to be issued. The Commercial Bank of London was appointed the company's bankers, in lieu of the North and South Wales Banking Company. The agent's stated that 20 tons of ore would be ready for sale in a week; and a detailed report from Captain J. Prince was read, which was very satisfactory, it stating that from the quantity of ground opened, the efficient machinery erected, and the indication of mineral deposits, the most beneficial results might be anticipated.

In Foreign Mines, transactions have taken place in Cobres, Santiago, Copiapo, United Mexican, Linares, and St. John del Rey, with a slight advance in price.

The advices from Linares state that a considerable improvement has taken place in the 55, east of San Anton winze, the lode being worth 4 to 5 tons per fm. There were about 7 fms. to reach the deepest point, and the richest of the old men's workings in La Manca winze. The lode in the bottom of the 45, east of Shaw's, working on tribute, is worth 6 tons per fm. The ore in stock was 789 tons 17 cwt.

From the Santiago report it appears the workings in Perseverancia were not quite so promising as at last report: some heavy ground had been encountered in the stopes, from the shattered character of the strata, and which had impeded operations. At San Joaquin, Taylor's shaft was down 9 1/2 fms. below the deep adit, the indications favourable. The cholera had broken out at Holguin, but every precaution had been taken, and but little fear was entertained for the result.

The imports into the port of London of minerals, ores, and metals, in the fortnight ending 27th March, were—

20 cases boric acid from Leghorn  
812 bags alum from Bombay  
80 tons sulphur from Ostend  
175 tons ditto from Catania  
220 tons ditto from Gigena  
30 boxes vermilion from Bombay  
1 box diamonds from Bahia  
3 parcels ditto from ditto  
196 casks plumbago from Colombo  
166 kegs ditto from ditto  
316 boxes ditto from ditto  
94 casks ditto from Tuleoria  
308 boxes ditto from ditto  
75 chests zinc from Gien  
8 casks ditto from Antwerp  
67 cases ditto from ditto  
117 barrels zinc nails from ditto  
10901 plates zinc from Stettin  
13335 plates ditto from Hamburg

The imports into the port of Liverpool of ores and metals, in the week ending 1st of April, were—

26 tons copper regulus from Valparaiso  
184 tons ditto ditto from Cuzco  
143 bags mixed ores from Valparaiso

1800 cwt. copper ore from New Zealand  
15 cwt. copper sheathing from Cape of Good Hope  
24 cwt. old copper from Hobart  
1600 bars lead from Cartagena  
400 cwt. lead ore from Seville  
800 slabs tin from Boston  
2413 slabs ditto from Singapore  
1973 bars iron from Gothenburg  
100 tons pig-iron from Shanghai  
24 bundles steel from Melbourne  
61 cases mercury from Trieste  
23 ounces gold dust from Melbourne  
2 packages ditto from Hobart  
2 packages ditto from Sierra Leone  
6 boxes ditto from Hobart  
1 case specie from ditto  
1 case ditto from Calcutta

HULL, THURSDAY.—Messrs. T. W. Flint and Co. state that the market has been rather animated throughout the week, with a demand for several stocks—Tremaynes, West Providence, Alfreds, West Alfreds, and Gustavus, would find ready buyers. There is also a demand for West Tolgus, Devon and Courtenay, Herodsfoot, and others. In Wellingtons several transactions, prices lower—Trefusis neglected—Bedford United steady. Altogether more inclination to do business, both by buyers and sellers.

**MINING APPOINTMENTS DURING THE WEEK.**

5. Pay at Devon Consols, Botallack, Transack, and Boscove, Perran St. George, Par Consols, Dolcoath, Stray Park, and West Jewel.  
7. Treloweth account.  
9. Perran St. George, United, and other mines sampling.  
10. Ticketing at Redruth—Carn Brea and other mines.  
11. Stray Park account, on the mine; North Pool setting; West Caradon and Gons.  
12. Pay at East Crofty, Cook's Kitchen, West Treasury, Alfred Consols, United Mines, 14. Wheal Seton account, on the mine.

**IMPROVED COAL DROP.**—An improvement on the ordinary coal drop, rendering that piece of mechanism of much greater efficiency, has been carried into effect by Mr. Clark, resident engineer to the Earl of Durham, at Bunker's Hill, Fence House. The cradle for lowering the coal waggons to a level with the ships' decks is suspended to the longest limb of the suspension levers in the usual manner—the shorter limb forming a box, containing weights, by which, on releasing the coils, the empty waggon is raised to the requisite altitude for taking a fresh load. The improvement introduced by Mr. Clark consists of a series of oak or metal cribs, securely bolted to each frame of the lever, forming a circular rim—upon which a double iron brake is made to operate through the agency of levers, as in the ordinary application of such apparatus to inclines, wheels, &c., by which arrangement increased strength and steadiness is obtained, and greater power and control secured over the mechanism.

## SILVER-LEAD ORE

Sold at the Mine, on the 26th of March.

Mines.	Tons.	Price per Ton.	Purchasers.
Wheal Golden .....	75	£13 5 0	Walker, Parker, & Co.
Ticketing at Bagillt, on the 2d of April.			
Maechynlieth .....	22	£12 2 0	Walker, Parker, & Co.
East Shallow .....	21	18 5 0	Newton, Kates, & Co.
Ditto .....	18	18 7 6	Walker, Parker, & Co.
West Shallow .....	53	16 1 0	J. P. Eytton.
Rhoswyddol .....	6	10 8 0	Walker, Parker, & Co.
Dyffrynwm .....	16	10 18 6	Ditto.
Cairnmore .....	40	11 3 6	Ditto.

## LEAD ORES

Sold at Douglas, Isle of Man, March 29.

Mine.	Tons.	Price per Ton.	Purchasers.
Foxdale .....	90	£12 13 0	Walker, Parker, & Co.
Sold at the Mine, on the 1th of April.			
Driggith .....	12	£12 15 0	—
ditto .....	12	8 10 0	—

## COPPER ORES.

Sampled March 12, and Sold at Swansea, April 1, 1851.

Mines.	Tons.	Prod.	Price.	Mines.	Tons.	Prod.	Price.
Cobres .....	75	241	£18 5 6	Berehaven .....	77	104	£3 1 0
ditto .....	60	241	18 2 6	Knockmahon .....	126	7	4 18 6
ditto .....	62	24	17 17 0	ditto .....	104	7	4 18 6
ditto .....	58	241	18 10 6	ditto .....	101	8	5 18 6
ditto .....	57	231	17 13 6	ditto .....	79	8	6 0 6
ditto .....	56	24	19 1 0	ditto .....	26	9	6 12 6
ditto .....	55	24	18 2 0	ditto .....	24	5	3 18 0
ditto .....	50	241	18 2 0	Kapunda .....	58	32	24 11 6
ditto .....	8	75	87 0 6	ditto .....	47	31	38 0 0
ditto .....	113	16	12 11 0	ditto .....	38	37	37 0 0
ditto .....	107	17	12 11 0	ditto .....	29	42	23 17 6
ditto .....	96	16	12 14 0	Waterloo Slag .....	60	23	3 0 0
ditto .....	93	17	12 18 0	ditto .....	25	4	2 14 0
Berehaven .....	121	103	8 1 0	Aberdovey .....	35	8	5 11 6
ditto .....	116	103	7 14 6	Tigrony .....	3	36	25 10 6
ditto .....	103	11	8 5 6	Cronebane .....	3	36	26 0 6
ditto .....	93	11	8 5 0				

## TOTAL PRODUCE.

Cobres .....	896	£1438 18 0	Waterloo Slag .....	85	£247 10 6
Berehaven .....	510	4169 11 6	Aberdovey .....	35	195 2 6
Knockmahon .....	460	2473 0 0	Tigrony .....	3	76 11 6
Kapunda .....	173	4260 15 6	Cronebane .....	3	78 1 6

## COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
English Copper Company .....	241	£3162 5 6
Freeman and Co. ....	58	418 1 0
Greenfield and Sons .....	282	3251 17 6
Simms, Williams, and Co. ....	403	6440 6 0
Vivian and Sons .....	364	3683 9 0
Williams, Foster, and Co. ....	697	6983 9 6
Mines Royal .....	73	555 17 6
Schneider and Co. ....	43	1274 4 6
Total .....	2164	£25,799 10 6

Copper ores for Sale April 22.—Cuba, 458; Knockmahon, 365; Santiago, 356; Spanish 118; Burra Burra, 113; Chili, 20. Total, 1430 tons (21-cwts.)

## AVERAGES.

	Produce.	Price.	Standard.
British .....	9	£6 11 0	£97 8 0
Foreign .....	236	17 8 6	84 10 0
Sale .....	16	£11 18 6	£98 3 6
Totals—British, 1096; Foreign, 1068 = 2164 tons (21-cwts.)			

## AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British .....	19	£7 13 0	£96 19 0
Foreign .....	261	20 7 6	84 19 0
Sale .....	241	£18 12 0	£95 13 6
Totals—British 142; Foreign, 866 = 1008 tons (21-cwts.)			

## COPPER ORES.

Sampled March 19, and Sold at White's Hotel, Pool, April 3.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
North Pool .....	100	£3 18 6	East Pool .....	45	£1 15 0
ditto .....	95	4 8 0	ditto .....	25	1 4 6
ditto .....	92	3 0 6	ditto .....	24	1 9 6
ditto .....	76	7 0 0	East Wh. Crofty .....	103	4 18 0
ditto .....	73	1 12 0	ditto .....	84	4 6 6
ditto .....	71	7 0 0	ditto .....	62	4 8 0
ditto .....	63	7 12 0	ditto .....	56	4 12 0
ditto .....	37	2 4 0	ditto .....	39	2 4 0
Tincroft .....	69	3 6 6	ditto .....	38	0 16 6
ditto .....	66	1 8 0	ditto .....	36	1 6 0
ditto .....	63	1 18 0	ditto .....	15	0 18 0
ditto .....	62	5 1 6	ditto .....	5	0 12 0
ditto .....	61	3 15 0	Dudnace .....	17	4 10 6
ditto .....	59	3 18 6	ditto .....	12	3 16 0
ditto .....	57	3 18 6	Camborne Vein .....	63	4 2 6
ditto .....	53	2 6 6	ditto .....	61	3 10 0
ditto .....	51	3 4 6	ditto .....	38	3 16 0
ditto .....	42	15 0 0	ditto .....	25	2 0 0
Wheal Basset .....	96	6 18 0	Wheal Francis .....	75	3 0 0
ditto .....	90	2 10 6	ditto .....	45	4 6 6
ditto .....	86	2 16 0	Condarrow .....	95	4 16 0
ditto .....	76	5 6 0	ditto .....	70	7 3 6
ditto .....	71	2 6 6	ditto .....	57	7 15 0
ditto .....	59	6 2 0	ditto .....	53	2 2 6
ditto .....	42	15 0 0	ditto .....	30	1 15 0
ditto .....	40	15 0 0	Fowey Consols .....	104	6 10 0
Wheal Seton .....	105	5 12 6	ditto .....	96	5 12 6
ditto .....	74	4 10 6	ditto .....	62	2 2 0
ditto .....	63	4 18 0	South Wh. Frances .....	60	6 10 6
ditto .....	61	4 0 6	ditto .....	55	6 10 6
ditto .....	49	2 14 0	ditto .....	47	6 2 6
ditto .....	48	2 13 0	ditto .....	29	5 3 6
ditto .....	38	5 6 0	Dolcoath .....	64	2 12 0
ditto .....	23	3 9 0	ditto .....	50	4 8 0
Pendarves .....	41	3 16 0	ditto .....	39	10 14 0
East Pool .....	114	1 17 6	North Roskear .....	65	6 0 0
ditto .....	85	2 4 0	ditto .....	62	6 2 0
ditto .....	73	2 12 0	West Fowey/Consols .....	5	5 16 6
ditto .....	64	4 0 6	Pendarves Consols .....	46	4 2 0
ditto .....	7	3 6 6			



## NOTICES TO CORRESPONDENTS.

**COLLIER OPERATIONS.**—Sir: I should feel obliged if any of your correspondents would favour me with some information on the following subject:—In a colliery where about 30 yards of coal has been lost in level, it is proposed to head into the dip 70 yards, and continue the pipes to the end of the heading, and so win a face of coal of 100 yds. The dip is 1 in 7, which would give a fall of 30 ft., up which it is presumed the water would rise. I wish to know whether it is practicable?—J. H. Derby, March 31.

**ELECTRO-MAQUETTES AS A MOTIVE-POWER.**—In the description of Mr. Horth's magnetic engine, in last week's Journal, for "four-way rod" read "four-way cock principle." It should also have been more explicitly stated that the electric fluid moves constantly in one direction round the piston and each of the poles; upon which principle, and the alternate breakage of magnetic contact, the rotation of the motion depends.

The illustrated description of Mr. Little's improvements in electro-telegraphic instruments will be given in our next Journal.

"G. L." (Stafford).—The slags from the roaster are of a light specific quartz, black, and very porous; they are in general reduced along with the slags from the refinery in the metal furnace.

The letter of "One Done" can only appear with the writer's name attached.

"F. S." (Brighton).—The Queenan Mining Company have not yet declared a dividend. From the last reports it will be seen that the works are in an improving condition, and likely to prove remunerative to the adventurers.

"W. B." (Cambridge).—Our quotation of the price of Wheal Carpenter shares last week was more than you state. We refer you to the list of to-day—both prices were furnished by a respectable broker.

"A Shareholder" (Camberwell).—The dispute between the contractors and the Great Central Gas Consumers' Company is not yet arranged, but is still under arbitration, and most probably some considerable time will elapse before it is finally settled.

"A. M." (Leith).—Had better apply to some smelting firm at Swansea, as we have no means of obtaining information on such purely local matters, forming also minute details of a difficult and complex branch of business.

"J. P." (Leamington).—A letter addressed to the agent of the late Llandudno Mining Company, Ormeau Head, North Wales, will be attended to.

"A. McD." (Manchester).—We are not aware of any manufacturer of sulphate of zinc: the information could be easily obtained from some of the large dry-salting houses of Liverpool, or of Messrs. Brandram Brothers and Co., 17, Sile-lane, Bucklebury, London. The Telegraph Company must produce considerable quantities in working their batteries, but we have not heard whether, as yet, it is sufficiently large in quantity to induce them to make it an article of commerce. It is remarkably pure.

"G. B. C." (Liverpool).—We noticed the account of the discovery of gold in black sand in California. We believe, on examination, this will prove to be a mineral commonly called Monacite, or Isarite, which is nothing more than titaniferous iron, and which has the appearance of glistening yellow grains embedded in black sand.

**APPLICATION OF ANTHRACITE TO LOCOMOTIVE AND MARINE ENGINES.**—Sir: As the introduction of anthracite for use in locomotive and marine engines would be of great benefit to the anthracite district, perhaps some of your correspondents would kindly state under what conditions that fuel is used in America—whether there is any peculiarity in the boilers—to what cases the fan-blast is applied—whether American anthracite is different from Welsh, &c.—CARBON.

Mr. Adam Murray, Jun., is now on a tour of inspection of mines in Cornwall and Devon, and has arranged to be at the following localities on the dates named:—April 7th and 8th, Penzance; 9th, Hayle and Copper House; 10th, Redruth; 11th and 12th, St. Austell, Charlestown; 14th, Bodmin; 15th, Five Lanes, Wheals Vincent, and Sarah; 16th, ditto; 17th, Lamheroc; 18th, Woodman's Well, Lydford; 19th, Ashburton; 20th and 21st, Henneck, Exeter; 22d, London.

"N. E." (The postage on the Mining Journal, when forwarded to the city of Galena Illinois, North America, is one penny weekly).

"A. R." (Bristol).—Replies to the advertisement must be forwarded as stated: personal applications will not be attended to.

"S. W. S." (Eppingham).—As lime of commerce is generally produced from the carbonate, either in the shape of mountain limestone, lias limestone, chalk, or other varieties, according to the locality, we were not aware that sulphur formed any portion of its constituents. If gypsum, or sulphate of lime, was used for its production, a considerable portion would most probably remain in the lime after calcination.

**HOLMBUSH MINE.**—*Errata.*—In Capt. Prince's report, in last week's Journal, there are several errors:—Line 9 from the top: read—whilst the main lode is underlying from, the flap-jack lode is underlying towards the shaft. Line 13: read—and the water issuing from it contains copper, yet, &c. Lines 19, 20: read—no intermediate level having been driven above, the ground is nearly whole to the surface. Line 34: for productive, read unproductive. Line 37: for draining, read drawing. Line 54, for one, read it.

A notice of Mr. Dick's invention for making steel and gas in the same furnaces and at the same time appeared in the Journal on the 1st March.

Mr. David Muehle, on "Colliery Accidents—Life Assurance;" Mr. N. Ennor, on "Volcanic Mountains, and the Origin of Steam Tin;" Mr. R. Symons, "Glances at the Gloomy State of the Gwennap Mines;" Mr. T. A. Readwin, on "Anonymous Correspondence on Mining Inspection," shall appear in next week's Journal.

\* We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

\* It is particularly requested that all communications may be addressed—

TO THE EDITOR,

Mining Journal Office,

26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, APRIL 5, 1851.

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In the MINING JOURNAL of the 15th March, we called the attention of our readers to a bill which had been introduced into the House of Commons "For Facilitating the Settlement of the Affairs of the Governor and Company of Copper Miners in England, and for the better Management of the said Company." To-day a meeting of shareholders will take place, pursuant to annual custom, to elect a Governor, Deputy-Governor, and Court of Assistants, for the forthcoming year. It may be remembered that, two years since, at the annual meeting for 1849, at the London Tavern, a committee of shareholders was appointed, in order to take such steps as might be considered expedient to rescue the company from its then pressing difficulties, and to report on the necessary measures for its resuscitation and amendment. One of the members appointed on the committee (Mr. Alderman CADDEN) at that period made the trite observation that he had been on several committees previously, and he expected that this would end as all others had done—in "smoke." Previous, however, to entering into any further detail, it may not be inapposite here to give some brief account of the previous proceedings of the company. Prior to the reign of WILLIAM and MARY there existed two large associations, entitled the "Mineral and Battery Works" and the "Mines Royal Company," which had been previously incorporated by QUEEN ELIZABETH. These have been since amalgamated, and now exist under the latter denomination, and are known as a body honourable from their antiquity, though but limited in their operations. On the 3d of August, 1691, the associations with which it is now our province to deal with were incorporated, and certain rules and regulations were then laid down for their government. On the 9th Feb., 1711, QUEEN ANNE was further pleased to grant Letters Patent, confirming their privileges, and allowing certain alterations to be made in the mode of electing the officers of the company. In the year 1725 we read of their getting into difficulties, and being obliged to create new stock, in order to free themselves from certain liabilities, and enable them to prosecute their undertaking, in conformity with the spirit of the Charter. In the year 1841 the joint-stock consisted of 7600 shares, of the nominal amount of 13s. each. In that year the Court of Assistants resolved on the issue of 2400 new shares—the amount of these and the old shares being represented by the sum of 328,835s. stock. In 1846 a large sum of money was raised by the company by the issue of preferential shares of 25s. each, the holders being entitled each half-year to a preference dividend at the rate of 37s. 6d. per annum on each share paid up, or rateably according to the instalment before the payment of any dividend to the stockholders. The amount raised by these shares was represented by the sum of 281,300s., making the joint-stock of the company 610,135s. From time to time subsequently, the Governor and Company found themselves forced to borrow money on debentures or loan notes, and inclusive of the two sums of 150,000s. debentures, held by the Bank of England, and 115,000s. by other creditors, their debts amount to the sum of 613,225s. Subsequently, under certain conditions, the Bank advanced further sums, on receiving a lien on the property of the company; and it is a notorious fact that, for some time past, they have been the *de facto* proprietors of the establishments. It would be unnecessary here to detail the negotiations which took place, as they are well known to all concerned, and it would far exceed our present limits to attempt to enter into any lengthened narrative on the subject. It is sufficient to say that considerable dissatisfaction existed among a large and influential body of the shareholders. Proceedings in the Court of

Chancery were commenced;—to the complex difficulties of the company litigation was superadded. At the meeting held in April, 1849, angry recriminations took place, which only tended mutually to embitter the conflicting interests. A Shareholders' Committee was then appointed, with a view to adopt such means as they considered necessary to resuscitate the company. The task was one of no ordinary difficulty, and, to our thinking, one of the most thankless that could be imagined. In the July of that year, Messrs. SHUTTLEWORTH and SONS were directed by the mortgagees to dispose of the property at the Auction Mart, but no bid being offered, the sale was withdrawn. The like attempt was made in the corresponding period of the year 1850, and met with the same result.

During this period, the Shareholders' Committee were not idle: meetings were held with the debenture holders, negotiations were carried on with the several parties interested, and at the commencement of the session of 1850 a bill was brought into Parliament. This, after being read a second time, was committed, and the five gentlemen forming the committee, not considering the preamble proved, threw it out. As, according to the rule of the House of Commons, no reason need be assigned by the committee for their judgment, the Shareholders' Committee were left in the dark as to where they had failed in proving their case. The consequence was, that the whole labours of a year were thrown away. At the commencement of the present year an extraordinary meeting was called: the result was that some fresh blood was infused into the committee, and a determination that an amended bill should be brought into Parliament, and with this it is our present purpose to deal. The amended bill proposes that the Letters Patent should be confirmed, and that on it the Companies' Clauses Consolidation Act of 1845 should, to a certain extent, be incorporated. A meeting of debenture holders and creditors is to be called, after the election of the officers of the company. Provisions are made for certain debts, which are recited in full in the body of the bill. It is then proposed that every debenture holder who holds debentures to the amount of 500s. shall receive stock to the amount of 250s., the preference shareholders of the like amount 125s., and the old stockholders only the sum of 62s. 10s., or only one-eighth of their original amount. Further, the Court of Assistants are allowed, on their own responsibility, to borrow 200,000s., and a further sum of 100,000s., to be fixed by any general or extraordinary meeting of the company—such new proprietors to be entitled to preference over the other stockholders. These are, however, to be offered to the debenture holders and creditors, thereby increasing their liabilities. We do not wish to enter further into the legal details of the proposed Act, but on the *prima facie* appearance; it seems to us to be a "creditors' bill," and nothing more. We leave our readers to draw their own conclusions from these pregnant facts. The company, at this present time, according to their own showing, are in a state of insolvency. The old stockholders may be satisfied that they have not lost all, and, perforce, may be contented that they receive one-eighth of their original stock; but it is different with the preference shareholders, debenture holders, and other creditors, who, by this bill, will be forced to become partners in a bankrupt concern.

It will be, at the same time, a great injustice on many of the stockholders, who probably are annuitants who have invested their all in this company, and now by a sweeping enactment find their property so fearfully reduced. The debenture holders, and other creditors, see that there is fresh provision for other preference shares, which are to be paid before they can receive one farthing of dividend; and the probability is that the company in another seven years will be in a similar position again, and may have recourse to the same means to free themselves from their liabilities. Much as we should deplore the total decadence of the Company of Copper Miners in England, we think it would be a small evil, in comparison with the unwarrantable precedent which would be established if their proposed bill was allowed to pass into law. If such should be the case, what should prevent certain railroads in the east and in the north, which are in like position, from applying to Parliament for some such enactment to discharge their liabilities, and force their creditors to become partners on their non-paying and insolvent lines? The bill has been read a second time and passed; it has still the ordeal of the committee to go through. We trust that, without favour or affection, they will do their duty. Should it pass unscathed through the Commons, we confidently hope that the Lords will not allow so manifest an injustice to be done to the parties most interested—the debenture holders and creditors. In fact, it can only be characterised—and we must be allowed to coin a word—as a semi-repudiation. The evil must be firmly grappled with. The passing of such an enactment will be a precedent for others of a like nature, and, involving a far greater stake, will inflict a fatal blow on all credit, and be a lasting disgrace to the first commercial city of the globe, which has been justly designated the emporium of the world. It may be urged that the difficulties of the company are such that no other remedy will aid them to escape from the difficulties and dangers which beset them. Their property is of such value that, if they do not work it, others parties, as soon as clear and legal titles can be found, will do so; and it were far better that they should die a natural death than that a premium should be given to mismanagement (to speak in the lightest terms) to continue its course of recklessness, unheeded for a series of years, and then apply to Parliament for means to repair the evils of its carelessness and inefficiency. If such an enactment becomes the law of the land, a precedent is established which, at the same time it aids these evils, will in due time become the abettor of fraud and tergiversation. We by no means infer this is the case with the "Company of Copper Miners." Probably they think they are acting the best for their own benefit; but the custom they would establish is ruinous to the community in general. This subject may probably be brought under the notice of the meeting to-day; and we trust it will be discussed there in the spirit which its commercial importance deserves. We have a hope that some better and juster means will be adopted to extricate the company from their difficulties.

If no other plan is proposed, we say that this is most unjust, and derogatory to the principles which should govern a commercial community; and it would be far more honest if they were to pass through the ordeal of the Bankruptcy Court. They would then have the public sympathy, whereas now they can but expect their unqualified disapprobation. It may be said that by so doing many interests must be sacrificed, but we urge—*"Fiat justitia ruat cælum."*

The explosions of the two steam-boilers at Stockport and Johnstone—so destructive to human life and property—has caused much excitement in the public mind, and ought to lead to a wholesome and rigid investigation, as to the erroneous and unscientific construction, deficiency in strength, or reckless working at a pressure greatly above what they were ever intended to bear. On carefully noticing the details of the several recent boiler explosions, there are some curious features of resemblance in all. They are cylindrical boilers of about 30-horse power, with inside tube forming the furnace and ash-pit—two of them quite new, and worked to from 24 lbs. to 30 lbs. per inch; while it is evident that great carelessness, to say the least of it, or through ignorance or parsimony, a sufficient number of proper stays had not been inserted. There cannot be a doubt as to the economy, as well as safety, of using high-pressure steam expansively, when thoroughly good and efficient boilers are made by boiler-makers of known character and experience; and as a proof that such assumption is correct, we need only refer to the Cornish engine, as adopted at all our large mines, and where an occurrence of the kind rarely happens. The true Cornish boiler is rarely to be seen in the north; and, perhaps, the finest specimen out of the county is the one erected by Mr. WICKSTEAD, at the East London Water-Works. The complete Cornish boiler, as now improved, is a smoke-consumer of the most simple description; and while complicated contrivances and gim-crack toys have been resorted to in the midland counties, and legislative enactments have taken place to prevent the smoke nuisance, their engineers have entirely, either through ridiculous pride or ignorance, overlooked the advantages of a Cornish engine—an example so worthy of being followed by them. It appears a serious evil that a thousand individuals are compelled to work in a factory at the foundation of which a mine is charged, ready loaded, and prepared, in the shape of a steam-boiler, to launch them all instantaneously into eternity, under the most trivial circumstances; and it becomes a grave question whether steam-boilers should not come under the ordeal of a regular official inspection, as well as the machinery in the manufactories.

In the House of Commons, on Tuesday evening, Lord ASHLEY mooted the question. He inquired of Sir GEORGE GREY whether the Government had directed its attention to the recent frequent boiler explosions in factories, and, if so, whether there was any intention of placing those boilers, as well as the machinery, under the superintendence of the factory inspectors? Sir GEORGE said the attention of the Government had been

drawn to the melancholy loss of life which had taken place, but he hardly saw how the duty of the factory inspectors could be applied to the boilers. We can tell Sir GEORGE. If the inspectors are scientific and active individuals, persevering in the due discharge of their duties, the boilers would come more legitimately under their views than any other parties, with little increase of duty, and without addition to the national burdens. We believe there is little that is mysterious or marvellous in these explosions; they are generally found to tear open at bottom, and the water rushing in upon the fire, raises an irresistible body of steam, which increases the rent, and hurls the boiler, like a rocket, into the air, destroying everything in its way; and we believe the principal causes to be defective construction in the first instance, or gross neglect or recklessness in after working.

In the House of Commons, on Tuesday evening, in reply to Mr. HUME, Sir GEORGE GREY stated that the coal mine inspectors would lay the reports of their proceedings upon the table of the House either yearly or half-yearly: the latter, we should suggest, would be by no means too frequent, in order to keep the attention of Government and the public constantly alive to the working of the measure, how far the present imperfect legislative enactments meet the necessity of the case, and the general wish. In another column will be found a communication from Mr. MATTHIAS DUNN, one of the inspectors for the north, on the late dreadful explosion at Nifhill, from which it will be seen that, notwithstanding there are no coroners' inquests in Scotland, the necessary enquiries are not lost sight of, and there are the same facilities for trial, in case of criminal negligence or premeditated injury, as in England. Mr. DUNN has conferred another benefit on the mining population, by making a comparison between the practices which prevail in many of the Scottish mines, and the management of the collieries in the Northumberland and Durham districts, highly favourable to the latter. It is clearly shown, beyond doubt or cavil, that the Scotch system acts detrimentally, not only to the effective and economic working of the mines, but also in reference to sudden loss of life by falls of stone, explosions of gas, and bad machinery, as also the continuous undermining of the constitution by inhalation of carburetted hydrogen and carbonic acid gases, through inefficient ventilation. In the north of England the proprietors, or lessees of mines, employ suitable agents and sub-agents, who visit and direct all the operations. The collier has so much per ton for getting the coal; he has no charge of timber or procuring it: all his duties end when he fills his coal into the tub, and is directed when to use a safety-lamp or candle. The putter, or hauler, has also a fixed duty to perform, at so much per ton, and this duty is ended on placing the coals at an appointed place; boys employed as trappers, in driving horses, and all other work; the overseer, with a discretionary power to appointing others in cases of emergency; while every expense connected with the working of the colliery comes directly from the pockets of the owner, who having a permanent interest in it, feels it to his advantage to keep up the efficiency of the plant and machinery. Not so in Scotland—here the generally prevailing practice in the coal and ironstone districts is by contractship, or what in South Staffordshire is known as the butty system. By it the owners let to small contractors the pits, from which they are to produce the mineral at so much per ton; these again sub-let to others certain parts of the work, such as hewing, hauling, repairing roads, &c., and to provide the necessary prop-wood at the top or bottom of the pit. The whole workings are, in fact, left to the care of people, often without capital, having no interest in the colliery but for the time of contract, and who, anxious to make all the profit possible, neglect the most common precautions for safety. On the working man depends the responsibility of leaving his work, often many hundred yards off, to fetch the props, which he probably cannot find of a proper length, and which if he gets, perhaps, does not know how to use them effectually. The natural result is a loss of life, and then the contractor pleads his understanding with the collier. No method of ventilation can be kept up without expense, the outlay for which may naturally be scrupled at by a person whose interest only extends, perhaps, over a few weeks; and this practice of contractship in Scotland shows that many essentials to safety are wanting; and instead of having the roads, air-ways, and ventilation arrangements on sound and satisfactory principles, the contrary too often prevails, and ever will prevail so long as this pernicious system is adhered to.

Mr. DUNN does not deny that substantial contractors are to be met with, who maintain the well-being of the mine as well as a proprietor; but such are the exceptions, not the rule. It is but justice to say, that these objections are less applicable to the Nifhill Colliery than to almost any other in Scotland. The watchful and personal superintendence of Messrs. COATS is proverbial, their expenditure in the laudable endeavour to render the colliery safe has been enormous, and the most searching enquiry will but redound to their credit. We are happy to hear that the subscription for the survivors goes on munificently; and that in addition to the very liberal donations of 500s. from the Messrs. COATS, and 300s. by the EARL OF GLASGOW, several further large contributions have been received during the past week, which will, together, form a fund, we trust, in some degree tending to mitigate the harrowing sorrows of the survivors, which must be felt for their irreparable losses.

Notwithstanding the endeavours of the Legislature to abolish the accursed truck system, so immoral in its tendency, and by which the comforts of the working collier are abridged, and a portion of his hard-earned wages taken from him to swell the profits of the owner, or some butty or contractor shopkeeper, we fear the practice is far more rife than the public can conceive; and the fear of losing their work when once obtained, prevents the exposure of such cases by the workmen, and the proper and exemplary punishment which should be awarded. An atrocious and bare-faced case of this description was heard before the Wolverhampton magistrates, in which GEORGE ROBERTS and ABRAHAM DIKES, butty colliers under Mr. PEMBERTON, were the accused. From the evidence of JOHN CHURCHILL, a collier, it appeared he entered the service on the 14th January, and continued to work until the 11th March. On that day he applied for money, when he was told he "might go to the Tommy shop," getting a paper for the purpose to the amount of 4s., which was stopped out of his wages when the reckoning took place; he had only received 5s. in money during the whole time. WILLIAM H. REYNOLDS said he was a fellow-workman with CHURCHILL, and kept his accounts, as CHURCHILL could not write. He was present on the 18th January, when the goods were delivered, as he worked at the same place. He never had cash from the office. A book was produced, which witness said he had never seen, and if any mark was entered as his it was a forgery, for he had never seen it. CHURCHILL stated the same fact with regard to the mark as a signature in the book.

For the defence, it was stated by one BOTHWELL that he paid the plaintiff 4s. on the 24th of Jan., and that the complainant put his mark to the entry in the book, and on several subsequent occasions, which statement was also supported by THOMAS HARPER, the ground bailiff, who stated that he had been in the office when money was paid both to CHURCHILL and REYNOLDS. The shuffling of this mode of defence is disgraceful to the parties; the offence charged against them was for an act on the 18th Jan., and they produce evidence of payment on and after the 24th. The bench also took this view of the case, and convicted the defendants in the penalty of 10s. and 1s. costs, which their attorney recommended them to pay. It was evident they left the main fact unanswered, as there were several other charges of a similar nature, previous to the 18th January, which were left to stand over, to give an opportunity to the parties to settle. The marks in the book produced are stated to be singularly similar, and well formed, totally unlike what an illiterate man, who could not properly hold a pen, would make.

As a convincing proof that our observations at the head of this article are not unfounded, and to show the public opinion of the laws for counteracting the nefarious truck practices, we may state that a public meeting was held at the Dragon Inn, Walsall, on the same evening as the above inquiry was terminated, to petition Parliament to amend them, and to render them still more stringent and suppressive. The Mayor convened the meeting, and the resolutions were moved and seconded by the Hon. E. R. LITTLETON, M.P., Rev. A. GORDON, and Messrs. C. FORSTER, J. WILKINSON, and LINNEY. They set forth the serious and cruel oppression of the truck system in South Staffordshire; the immense unfair profits obtained by the truck masters, who set the laws at defiance, or evaded them from their inadequacy; and Mr. LINNEY stated he had actually seen sacks of flour pledged to raise money for rent, as the men could not obtain it from their masters; and it appeared from some of the speakers, that it was pro-

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cular to South Staffordshire, and now unknown in the Potteries, Lancashire, Yorkshire, &c. The petition was unanimously adopted, and is to be presented to the House of Commons by Mr. LITTLETON, M.P., and to the House of Lords by Lord HATHERTON.

In order to enforce the existing laws, and adopt measures for crushing the monstrous evil, before it takes a deeper root, and ruins every honest trader who attempts to compete with these swindling dishonest pests in the market for supplying the necessities of life in exchange for labour, we are most happy to find that the Anti-Truck Association, established some time since, has received support, and is flourishing far beyond the expectations of its most sanguine admirers. Commencing by "flinging small stones against a giant," it has at length won repeated victories over the petty dirty tyrants of the truck system, who, like a certain vile priesthood, would not, if they could help it, allow men's souls to be their own, and now stands out in respectable and bold relief, promising soon to annihilate, even with the existing laws, this curse on the rights of those who "earn their bread by the sweat of their brow." We heartily wish the association success, and shall endeavour to second its efforts by every means in our power.

A cause of some importance to colliery proprietors, as well as the working miner, has been tried at the Glasgow Assizes. The plaintiff was JOHN SMITH, a collier, and the defendants, Messrs. JAMES BEAUMONT NEILSON and ROBERT PATERSON, owners of the Bartonshill and Bargeddie Collieries, in Old Monkland, Lanarkshire. The plaintiff was employed by defendants, and alleged that in working the coal in Bargeddie Pit portions of coal had been left standing as stoops, or pillars, at fixed distances, to support the roof of the pit; but that in the months of May and June last the defendants, or their managers, gave orders for the removal of these stoops, in order to turn the coal to good account, and that on the 30th of the latter month the plaintiff was engaged in drawing coals along the bottom of the mine, when, in consequence of the removal of the pillars, there fell from the roof a large quantity of stones, earth, &c., weighing between 20 and 30 tons, which buried and crushed the plaintiff, where he remained for three hours, while 20 men were engaged in liberating him. It was for the injuries, and consequent loss of time which he sustained, that the present action was brought. For the defendants, it was stated that a short period before the occurrence, the overseer had made arrangements with certain of their men for working out the pillars in the western division of the pit. One of these parties was PETER SMITH, plaintiff's brother, and it was a stipulation that the men should be careful, and put in sufficient timber props. Two days before the accident, the overseer complained that PETER SMITH was not putting in sufficient timber, and particularly requested a younger brother not to work there until it was rendered safe, and that on the day named PETER was absent, and the plaintiff was, contrary to rule, working in his brother's place. The defendants, under these circumstances, contended they were not liable, as the plaintiff had left his proper work, and without authority, proceeded to a part of the pit where he was not required, and where the accident happened. Before the evidence was concluded, however, the defendants' counsel intimated to the court that, from the nature of the evidence, they could not resist the claim, and the jury accordingly gave a verdict for the plaintiff—damages, 100*l.*, with costs and interest from the 27th Nov., 1856.

We last week inserted a communication, remarking on the erroneous impression which was likely to be produced by the conversation in the House of Commons between the protectionist, Mr. BOOKER, and Mr. LABOUCHERE, the President of the Board of Trade, relative to the imposition of increased duties on British iron by the United States; and from much correspondence since on the subject, we are enabled emphatically to contradict the assumption of Mr. BOOKER, in attributing to the American Congress a decision never come to by them, which must have emanated solely from his fertile protectionist brain (?) where "the wish was father to the thought." The article in another part of this day's impression is in itself tolerably convincing as to the real state of the subject, and that the passing of HUNTER'S Appraisement of Duties' Bill will not advance the duties on British iron, payable under the tariff of 1846; but being in possession of a few facts, we feel disposed to give such speculators as Mr. BOOKER and his friends the benefit of them, also hoping they may suggest to Mr. LABOUCHERE that it would be more creditable, in the leader of an important official department, to make himself acquainted with the real bearings of a case before he expresses himself too decidedly thereon. To show how little reliance is to be placed in the statement that a division had taken place in the House of Representatives of 127 to 54 in favour of increased duties on iron, it is only necessary to state that every protectionist American paper has deplored the defeat of that party upon every motion for increased duties on iron; and neither in the leading articles of any Journal, or in the private correspondence of parties watching this question, has such an important division been noticed. It is the general belief that Mr. LABOUCHERE and Mr. BOOKER have mistaken this division for one that occurred upon an entirely different subject. The state of the tariff question in America, and how operated upon by party compromises, is interesting, although probably not very creditable to the parties concerned. In December last, when Congress met, the Pennsylvania ironmasters had secured a majority for increased duties on iron, by voting with the South on all slavery questions. Many of the protectionists were, however, anti-slavery men, and refused to sacrifice their principles on the slavery question, to assist in an increase of the tariff. This attempt failed. Secondly, as the votes for increased duties on iron numbered more than the cotton interest, these latter felt jealousy at the prospect of increased protection to the iron manufacture, and no increase for them; and the New England voters refused to go with the ironmasters, unless cotton was included in the bill, under the impression that a coalition would carry both objects. A bill was moved, embracing higher duties on iron and cotton. This again failed. Many voters who had promised support to iron, refused it when coupled with cotton, and the losses equalled the gain. The most dangerous of many combinations that followed, or were attempted, took place the last week of the session. It was, that on consideration the ironmasters lent their support to the River and Harbour Bills, the Western States would vote a tariff (this combination was successful in 1842), leaving cotton altogether out. It was, however, shown that the River and Harbour Bills would be buried, if such an alliance was persisted in, and this certainty kept back the votes of the Western States. All these attempts were foiled by majorities of five or six; and so far from believing protectionists' prospects will be bettered next session, it is expected a much larger number of free traders will be elected. Where presidential intrigues and compromise of principle are carried to such lengths, the small number of voters in the Senate will always render any line of policy doubtful as to permanency; but it is to be hoped that in America, and all over the civilised world, freedom of commercial intercourse will receive fair and full discussion, and that our far-sighted friends on the other side of the Atlantic will affirm that "enjoyment without sacrifice, to the sacrifice of the enjoyment of the great bulk of the nation," will no longer be tolerated.

The letter of a correspondent, in another column, having reference to the prospectus of a company for working a mine in Ireland, leads us to offer some passing remarks on the several projects put forward of late; and we must admit that the time has approached when caution should be observed. Ever anxious have we been to encourage mining enterprise; but it would seem that scheming and speculating in London, Manchester, or elsewhere, would take the lead; and these we shall at all times oppose. There can be no question but that capital is required for mining enterprise; but, at the same time, we believe it will be admitted, representations are made too frequently without foundation, which require an exposition; while the absence of the amount of "purchase money" in the prospectus is in itself, or should be, to the public a safeguard, as showing to them that the projectors were not honest and candid. Most gladly should we advance all projects which had for their view the enhancement of the mining interests, and readily afford through our columns any information calculated to promote their views; but when we find that prospectuses and advertisements are put forward with false statements, and the most absurd views, as we can demonstrate, it is only our duty to caution the public from embarking in any undertaking without first consulting a practical miner, or possessing themselves of that knowledge which will justify them in taking part—*Ver. sup.*

## STATISTICS OF COPPER, LEAD, AND TIN.

The first quarter of the year 1851 having now expired, we proceed to lay before our readers the usual summary of the sales of copper ore by public ticketing in Cornwall and at Swansea; those of lead in London, Holywell, Aberystwith, and other places; and the quantity of tin sold, to the extent to which we have been able to obtain it—an amount which, probably, as we have before stated, does not reach a tenth part of the tinstuff raised in Cornwall and Devon. The quantity of copper ore sold in Cornwall during the past quarter has been 36,860 tons (21-cwts.), producing 2897 tons 4 cwt. fine copper, and realising 192,274*l.* 11*s.* 6*d.*, with an average price of 5*l.* 4*s.* 4*d.* per ton, and produce of 7-859 per cent. The statement, as compared with the last quarter, stands thus—

Ore (21-cwts.)	Fine Copper.	Amount.	Average Price.	Av. Prod.
March 31, 1851..Tons 36,860	2897 4	£192,274 11 6	£5 4 4	7-859
Dec. 31, 1850.....39,343	3103 9	210,122 7 6	5 6 10	7-887
Decrease.....Tons 2,483	206 5	£17,847 16 0	£0 2 6	0-028

Being a decrease of 2483 tons of ore, 206½ tons fine copper, 2*s.* 6*d.* per ton in the average price, and 0-028 per cent. in the produce, with an amount realised less by 17,847*l.* 16*s.* As compared with the corresponding quarter of 1850, it is as follows:—

Ore (21-cwts.)	Fine Copper.	Amount.	Average Price.	Av. Prod.
March 31, 1851..Tons 36,860	2897 4	£192,274 11 6	£5 4 4	7-859
March 31, 1850.....37,608	2974 10	221,031 19 0	5 17 6	7-907
Decrease.....Tons 748	77 6	£28,757 7 6	£0 13 2	0-048

Showing still greater depreciation in the price, for, with a nearly equal produce, the price is 13*s.* 2*d.* per ton less, and with only a decrease of 748 tons of ore, the amount of money is 28,757*l.* 7*s.* 6*d.* less than the quarter ended March 31, 1850. On referring to the price of copper at that period, however, the difference is accounted for—tough cake having then been selling at 88*l.* 10*s.* per ton, whereas the present quotation is but 84*l.*

The sales by ticketing of Foreign, Irish, and Welsh copper ores at Swansea, during the quarter, consisted of 8898 tons, realising 109,946*l.* 12*s.* 6*d.*, at an average price of 12*l.* 7*s.* 1*d.* per ton. Compared with the previous quarter, the result is as follows:—

Ore (21-cwts.)	Amount.	Average Price.
March 31, 1851..Tons 8898	£109,946 12 6	£12 7 1
Dec. 31, 1850.....9143	114,005 7 6	12 9 4
Decrease.....Tons 245	£4,158 15 0	£0 2 3

Being a decrease of 245 tons of ore, 4158*l.* 15*s.* in money received, and 2*s.* 3*d.* per ton on the average price. With the corresponding quarter of 1850, it stands thus—

Ore (21-cwts.)	Amount.	Average Price.
March 31, 1851..Tons 8898	£109,946 12 6	£12 7 1
March 31, 1850.....8690	£125,751 6 0	£14 9 5
Increase.....Tons 208	£15,804 13 6	£2 2 4

Being an increase on the quarter just closed of 208 tons of ore, but a decrease in the average price of 2*s.* 2*d.* 4*d.* per ton, and on the aggregate amount 15,804*l.* 13*s.* 6*d.*

The above quantity of ore was made up as follows:—

Ore (21-cwts.)	Amount.	Average Price.
Foreign.....Tons 7813	£102,589 12 0	£13 2 6
Irish.....944	6,755 13 0	7 3 1
Sundry slags.....141	601 7 6	4 8 9
Total.....Tons 8898	£109,946 12 6	£12 7 1

The above quantity of foreign ore consisted of—

Ore (21-cwts.)	Amount.	Average Price.
Cobre.....Tons 4076	£59,876 7 0	£14 13 9
Cuba.....1587	18,963 2 0	11 18 11
South Australia.....432	11,337 6 0	26 4 10
Santiago.....798	6,452 17 0	8 1 8
New Zealand.....527	3,761 6 0	7 2 9
German.....386	2,142 13 6	5 10 11
Spanish.....7	56 0 0	8 0 0
Total.....Tons 7813	£102,589 12 0	£13 2 5

The average of the Barra Barra ores alone was 2*l.* 1*s.* 8*d.* per ton.

And the amount of copper ore from the Irish mines was—

Ore (21-cwts.)	Amount.	Average Price.
Berehaven.....Tons 567	£4540 5 0	£8 0 2
Knockmahon.....261	1557 18 6	5 19 4
Ballymore.....79	427 12 0	5 10 8
Malony.....8	112 8 0	14 1 0
Kildanne.....29	107 9 6	3 14 0
Total.....Tons 944	£6755 13 0	£7 3 1

The above quantities of copper ores were purchased as follows:—

Companies.	CORNWALL.	SWANSEA.	TOTAL.
Mines Royal.....Tons 2132	£11,795 7 9	492 6,663 10 3	2624 18,458 18 0
Vivian & Sons.....6685	34,203 0 11	2069 22,242 6 0	56,445 6 11
Freeman & Co.....4104	23,111 3 9	213 1,843 8 0	5317 24,954 12 7
Grenfell & Sons.....5424	26,569 2 5	1039 12,249 4 8	6473 38,818 7 1
Crown Copper Co.....476	2,301 14 2	—	476 2,301 14 2
Sims & Co.....5144	25,849 6 7	528 6,288 14 6	5672 32,138 1 1
Williams & Co.....8290	30,612 15 2	2126 26,053 4 4	10386 56,665 0 6
Schneider & Co.....2501	12,080 12 6	399 9,053 13 9	2900 21,134 6 5
Mason & Co.....1124	5,751 7 3	368 5,556 5 3	1492 11,307 12 6
English Cop. Co.....—	—	1056 13,643 12 8	1056 13,643 12 8
British & For. Co.....—	—	513 6,352 12 3	513 6,352 12 3
Total.....Tons 36860	£192,274 11 6	8898 109,946 12 6	45758 302,221 4 0

## PRODUCE OF THE PRINCIPAL COPPER MINES OF CORNWALL AND DEVONSHIRE, FOR THE QUARTER ENDED MARCH 31, 1851.

Ticketings.	Tons.	Amount.	Av. price.
Devon Great Consols.....3	4549	£27,569 0 6	£6 1 2
Carn Brea.....3	2026	11,221 5 0	5 10 9
Par Consols.....6	1660	10,982 18 0	6 12 4
Great Consolidated.....4	1998	9,269 15 0	4 12 9
North Roskear.....3	1554	8,404 0 0	5 8 2
United Mines.....3	1729	8,262 10 0	4 15 6
Wheal Buller.....3	1061	8,149 18 6	7 13 7
Powey Consols.....3	1295	7,846 7 0	6 15 3
Wheal Tregonny.....3	1295	7,846 7 0	6 15 3
West Caradon.....3	993	6,989 19 6	7 0 9
Tincroft.....3	2035	6,751 15 6	3 6 4
Wheal Seton.....3	1343	5,417 13 0	4 1 10
North Pool.....3	1539	5,440 12 0	3 10 8
Perran St. George.....2	1127	5,356 14 0	4 15 5
Tywarnhaile.....2	1367	5,347 5 0	3 18 3
Trevisey.....2	910	5,273 17 0	5 8 9
South Wheal Frances.....3	730	4,374 1 0	6 16 2
South Caradon.....3	633	4,669 1 6	7 7 6
Alfred Consols.....3	659	4,184 6 0	6 7 0
Wheal Friendship.....4	583	3,514 16 0	6 14 3
South Tolgus.....3	638	3,227 5 0	6 2 8
Bedford United.....3	417	2,638 8 6	6 6 6
Levant.....3	511	2,315 8 0	4 10 7
East Wh. Croft, Dudnace, &c.....1	442	2,011 3 6	4 11 0
Phoenix Mines.....1	143	1,556 10 0	10 17 7
East Pool.....1	334	1,197 0 0	3 11 8
Treloick.....2	296	1,192 19 6	4 0 8
Poldice.....2	296	1,190 15 0	4 9 6
Holmbarrow.....1	193	1,177 7 0	6 2 0
Condarrow.....1	272	1,167 15 6	4 5 1
Gamborne Vein and Wheal Francis.....1	336	1,164 15 0	3 9 4
Dolcoath.....1	209	934 1 0	4 9 4
Treavean.....1	345	994 6 0	3 12 1
Wheal Mary.....3	229	867 14 0	3 18 0
Wellington Mines.....1	165	842 11 0	5 2 1
Marke Valley.....1	260	789 2 6	3 0 8
West Wheal Treasury.....1	141	785 2 0	5 11 4
Wheal Ellen.....2	127	731 7 0	5 15 2
Wheal Agar.....3	154	691 15 0	4 9 10
Trethellan.....2	204	524 11 6	2 11 5
Botallack.....1	98	515 2 0	7 5 7
Wheal Tregonny.....1	117	482 4 0	4 10 0
Wheal Tregonny.....1	301	445 4 0	1 9 7
East Wheal Rose.....1	42	498 18 0	10 9 0
West Powey Consols.....1	68	435 4 0	6 8 0
Polbarrow.....1	144	431 4 0	3 0 0
Copper Bottom.....2	49	334 5 6	6 16 5
Wheal Henry.....3	68	325 5 6	4 15 8
Tranack and Bosence.....1	34	266 19 0	8 14 8

## PRODUCE OF THE COPPER MINES OF CORNWALL.—Continued.

Ticketings.	Tons.	Amount.	Av. price.
Charlestown United.....1	61	288 3 6	4 13 6
West Wheal Providence.....1	28	277 13 0	9 18 4
Cook's Kitchen.....2	34	265 0 0	4 18 5
Treylyn Consols.....1	68	253 16 0	3 14 5
Pendarves Consols.....1	62	240 2 0	3 17 5
Gonarnena.....1	30	220 10 0	7 7 0
Wheal Maiden.....2	47	213 14 6	4 10 11
Carthew Consols.....2	47	191 6 6	4 1 5
St. Anbun and Grylls.....1	33	185 0 0	5 12 1
West Wheal Jewel.....1	42	177 9 0	4 4 6
East Godolphin.....1	52	170 12 6	3 15 7
West Wheal Bassett.....1	46	170 4 0	3 14 0
Wheal Unity Consols.....1	53	166 12 0	3 14 0
South Wheal Speed.....2	26	160 6 6	6 3 4
Camborne Consols.....1	18	135 12 0	7 14 0
Wheal Jewel.....2	33	128 14 0	3 16 9
Wheal Busy.....1	38	120 13 0	3 16 6
Hawke's Point.....1	45	120 7 6	2 13 6
Wheal Gorland.....1	18	112 19 0	6 5 6
Wheal Vyvyan.....1	20	84 12 0	4 4 7
Wheal Clivford.....1	13	76 14 0	5 18 0
Pendarves and St. Anbun.....2	11	55 0 0	5 0 0
Wheal Penhale.....1	13	54 11 6	4 11 1
East Wheal Treasury.....1	14	47 5 0	3 7 6
Wheal Harriett.....1	12	46 16 0	3 18 0
Wheal Susan.....1	7	42 0 0	6 0 0
Wheal Bannus.....1	12	38 14 0	3 14 6
Lemin.....1	11	23 17 0	2 3 4
Wheal Union.....1	5	20 0 0	4 0 0
Sundry slags, &c.....5	70	107 8 0	2 9 6
Total.....Tons 36,860		£192,274 11 6	£5 4 4

## LEAD.

The quantity of lead ores sold by ticketing in London, Wales, and other places, of which we have been able to obtain returns, is 8209 tons, realising 109,800*l.* 14*s.*, being a decrease on the previous quarter of 705 tons and 5197*l.* 3*s.* 4*d.* This quantity was obtained from the following mines:—

Mines.	Tons.	Amount.
East Wheal Rose.....1964		£14990 10 0
Lisburne Mines.....834		9774 12 0
Trelawny.....392		7018 9 0
Mary Ann.....392		6472 1 6
Newtownards.....400		4400 0 0
Tamar.....202		4147 8 8
Laxey.....200		4050 0 0
Westminster.....335		3849 9 0
Gogman.....220		3813 13 6
Foxdale.....290		3486 5 6
Deep Level.....250		3227 0 0
Callington.....174		3078 19 6
Maesnyff.....260		2974 15 0
Harodfoot.....235		2927 2 0
Machynlleth.....216		2516 10 6
Maesyrwddu.....185		2161 6 0
Cwmystwith.....180		2044 10 0
Hendre.....163		1831 15 6
Pen-yr-henblas.....160		1829 4 0
South Australia.....143		1516 7 6
Trehane.....95		1435 7 6
Shalles.....115		1398 6 3
Talacre.....120		1296 0 0
Jamaica.....72		1252 4 0
Court Grange.....110		1217 10 0
Lloc.....87		1200 19 6
Caeconroy.....100		1107 0 0
Pant-y-mwyn.....83		1036 8 6
Coetan Llys.....95		1022 15 0
Nantoes.....55		977 9 6
Cwm Erbin.....73		973 16 0
Wheal Golden.....80		888 0 0
Cairnmore.....77		846 18 0
Bryntall.....60		715 0 0
Glengola.....55		663 7 6
All-y-Crib.....50		584 0 0
Drygith.....43		519 0 0
Pant-y-celyn.....44		511 12 6
Millw.....40		506 0 0
Merilyn.....40		461 0 0
Bwlch Gwyn.....30		441 0 0
Bwlch Consols.....38		422 4 0
Belgraves.....34		390 14 0



## Original Correspondence.

## THE LATE CATASTROPHE AT NITSHILL COLLIERY.

Sir,—I observe that your correspondents are anxious to see some authenticated report concerning the late catastrophe at Nitschill Colliery, whereby 61 persons were hurried into eternity. I also observe that some of the remarks are made in consequence of their not understanding the law of Scotland regarding the loss of life. I will, therefore, apprise them how the matter stands in this and all similar cases.

The Lord Advocate of Scotland is the public prosecutor, and the Procurators Fiscal are legal persons appointed in lieu of our coroners, to examine parties relative to the cause of accidents that have led to the loss of life. These examinations are taken privately, and forwarded, together with the report of the Fiscal, to the Crown-office, Edinburgh; and the said advocate and his depute then determine whether any grounds exist for a criminal prosecution of any of the parties.

I examined the colliery, and all the circumstances relative to the unhappy affair, and duly reported the result to the Lord Advocate, as well as a copy to the Secretary of State. It would, therefore, be premature in me at present, without their authority, to satisfy the public curiosity as to any other details than have found their way into the public press. I may, however, be permitted to observe that the liberal and charitable conduct of the proprietors, upon the melancholy occasion, has done much to assuage the deep feeling of the sufferers; and their determination to adopt every suggestion for the future safety of the colliery, which is in unison with every other proprietor in Scotland with whom I have met, gives promise that the working of the Act will gradually lessen the dangers to which miners are exposed.

MATTHIAS DUNN,  
Mining Inspector.

Newcastle-on-Tyne, April 2.

## PREVENTION OF THE ACCUMULATION OF GAS IN COAL MINES.

Sir,—The late dreadful colliery accident induces me to lay before your readers a plan which I have long thought would, in a great measure, if not entirely, prevent the accumulation of explosive gas which takes place in old workings of coal mines, and at the same time secure an escape for it from the parts of the mine in work, should any part of the roof fall in, and thereby stop any of the air courses leading thereto; but not being practically acquainted with coal mines, I have hesitated in making it public, fearing lest it should turn out that I have "found a mare's nest."

My proposal is simply to bore from surface 4 in. holes down to, and communicating with, the galleries of the mine. The carburetted hydrogen would rise to grass, and thus a constant drain would be kept up, at no expense, after the first outlay, for, of course, these holes could never become choked by the fall of the roof. It is very possible that, from causes I am unacquainted with, the plan would not answer, and even if it would, the expense may be an objection; but I think I could show the possibility of boring a 4 inch hole, 200 yards deep, at an expense of not more than 100l. in fair ground, and leave a sufficient profit to the borer.

If this can be done and the plan would answer, the cost should not be weighed for one moment against the safety of our fellow-creatures, even if it was double.—VOX IN DESERTUM: April 1.

## DISCOVERY OF "ALLANITE" IN CUMBERLAND.

Sir,—I beg to state that I have discovered this very rare mineral in a specimen from Carrock Fell, Cumberland. It is found both massive and crystallised; the crystals are imbedded in the mass, in oblique four-sided prisms, well defined—colour yellowish brown, translucent on the edges. With the blow-pipe alone it fuses to a shining black glass, not attracted by the magnet; with borax on the platinum wire, it behaves like cerite. It consists of silica, cerium, alumina, lime, oxide of iron, and water. I believe I am the first person that has introduced this, or any other ore of cerium, into the list of British minerals.

F. P. MARRAT.

Roscoe Arcade, March 31.

## ANCIENT GRANT OF LAND IN CALIFORNIA—BY CHARLES THE FIRST TO THE EARL OF STIRLING.

Sir,—At the present time, when the attention of so many persons is drawn to mining speculations, and so great a proportion of the public, not only of this but of other countries, is becoming peculiarly interested therein, useful information in reference thereto, of whatever character, may be more or less acceptable. Adverting to your Number of the 15th of last month, in which is an article under the head of "Doing the Californians," respecting a company in Paris, called *La Californienne*, of which it appears a M. Hochegsangt was the manager, and that "he made a contract with the Earl of Stirling to purchase the right which that nobleman was supposed to have over extensive properties in California, in consequence of a grant to his ancestor by Charles I, but it was not carried out, and the question of the availability of the grant under the American Government was not discussed." I beg leave to offer a few, perhaps useful, hints thereon. That such a grant was made by Charles I. in 1628 is true. That it was competent to the King to make such grant is likewise true; also that the grant was ratified by a special Act of the Scots Parliament, which, *inter alia*, was preserved by the 18th article of the Act of Union between England and Scotland in 1707; but these facts alone are not sufficient for any party about to enter into such a contract, as will be seen by the following brief statement:—The gentleman styling himself Earl of Stirling made up titles in his own person, according to the law of Scotland, it being originally a Scotch grant, and requiring a succeeding heir so to do, to the territory in question in 1828, as nearest and lawful heir of Alexander, the first Earl of Stirling, the original patentee. Certain actions, in which the *soi-disant* Earl of Stirling was plaintiff, were subsequently brought in the Court of Sessions in Scotland, in the last of which the judge, in his interlocutor of 20th December, 1836, pointed out various defects in the evidence of the plaintiff in support of his descent from the patentee. Thereafter, on 29th April, 1839, a trial took place, in which the supposed earl was concerned, before the High Court of Justiciary, in Edinburgh, over the particulars of which I draw the veil; but the result was, that the whole fabric of the titles raised by him in his own person to the territory of California was entirely swept away. It is to guard the public against similar attempts by him or others, that I offer this brief statement for publication in your valuable Journal.

Walbrook, April 1.

SCRUTATOR.

## STEAM-BOILERS.

Sir,—I feel obliged by the communication of "An Engineer," in your last Journal. The boilers contained only one tube each, running their whole length, and of the following respective dimensions—viz.: No. 1, 3 ft. 11 in.; No. 2, 3 ft. 6 in. The fire was placed under each boiler, and there was, consequently, no fire-box. I hope these particulars will enable your correspondent to form a better opinion on the change that has been made, and that he will be good enough again to communicate through the medium of your columns.—INQUIRER: April 3.

## IMPROVED FIRE-BARS.

Sir,—In your Journal of the 22d March is a notice of a patent having been taken out by Messrs. Cochrane and Francis for a V or U-shaped bar, with argillaceous or arenaceous material, pressed into, or simply lodged within, the V-shaped hollow. Will you allow me to state that this very mode of constructing a furnace bar was patented by myself in 1845—the V or U-shaped recess to be filled with any heat-refracting or electro-conducting substance? I am aware of the great advantage, not only as regards greater duration of fire-bar, but especially from the economy of combustible, induced by the electro-thermic influences of thus insulating the burning fuel in any furnace, whereby the highly electric flame seeks and impinges upon the metallic body to be heated, and thus securing the application of the redundant heat in a more concentrated form—a result of the fact that "the plus-electric state is favourable to the retention and concentration of heat."—WILLIAM RADLEY, Ch. E.: London, March 27.

## THE PATENT LAWS.

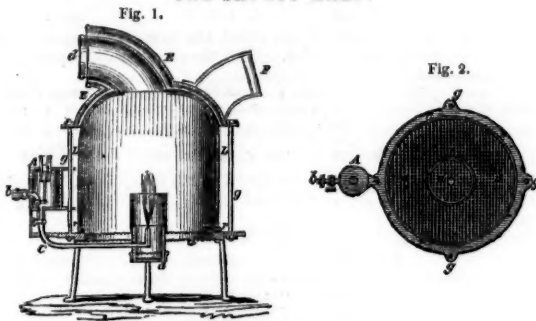
Sir,—You have much advocated the cause of the poor man of genius, whose means will not admit of him securing his invention by taking out a patent; but allow me to remind you that I do not think stress enough has been laid upon the consequences of high-priced patent right, as regards America. For instance, with regard to steam machinery, what will suit England would be desirable on the other side of the Atlantic, which doubles the expense; for whatever is charged for a patent in England, whether 10l. or 100l., they will charge the Englishman the same, though to their own people the charge is no more than about \$30. They say this is but fair, to charge as they are charged; they overlook the fact, that in

England an American is not charged more than an Englishman, or any other countryman. This is Brother Jonathan's one-sided view of fair dealing, which should be met by low prices; but what militates against that is, that at the meeting, the other day, the patent-office keepers were consulted by the Ministry. They, of course, are for high prices; the larger the cheese, the more plentiful the parings.—B.: France, March 26.

## COMPRESSED AIR SAFETY-LAMP AND RESPIRATOR.

We have already noticed the progress made by the Baron Von Rathen in his researches into the properties and powers of compressed air for locomotive machines, for land or water, and for safety and sanitary purposes in mines and collieries. We now proceed to describe a new safety compressed gas lamp, and a compressed air respirator, by the first of which the miner can work in comparative comfort in his gloomy abode, from the increased amount of light and perfect safety; and with the aid of the latter, he may with a moderate degree of presence of mind, in case of an explosion, secure himself from injury until the danger has passed. These inventions, although patented, are offered gratuitously to the public by the Baron, in the hope that those whose duty it is, as well as interest, to watch over the proper ventilation and healthy and safe mode of working of every colliery, will adopt a plan which he considers would prove an absolute security under all circumstances, and render deaths and injuries from explosions almost unknown. The late dreadful catastrophe at Nitschill, the collateral causes of which, as with the majority of explosions, can never be arrived at, was, there can be little doubt, brought about by one of those sudden and overwhelming blowers of carburetted hydrogen, which no ventilation, however good, can safely prepare the miner to counteract while the employment of naked candles is sanctioned; and, as the Davy lamp is generally allowed to be deficient in that illuminating power, necessary for the collier to earn a subsistence for himself and family, and under certain conditions of the atmosphere of a mine, as acknowledged by the illustrious discoverer himself, absolutely dangerous—a real safety-lamp would indeed be a boon to the mining population, to colliery proprietors, and the public at large. Such a lamp the Baron Von Rathen is confident he can produce, the principle of which may be understood from the annexed diagrams and description; and, as the construction of one, with its accompanying reservoir of compressed gas would involve no great expense, we shall be most happy, to see the subject taken up by some public-spirited philanthropist, connected with our collieries, and who would give the invention a fair and impartial trial.

## THE SAFETY-LAMP.



## THE RESPIRATOR.

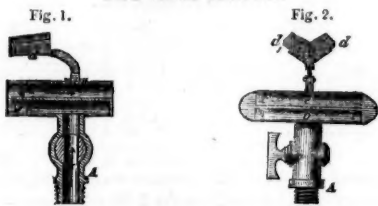


Fig. 1 is a vertical section, and fig. 2 a plan of the safety-lamp or lantern. A is the regulator, which admits to, and keeps at regular density in, the cylinder the gas admitted from the compressed gas reservoir, hereafter to be described, whatever may be its pressure in that vessel; b, the supply-pipe, with cock passing from the reservoir to the regulator. The flame is surrounded by a small open glass cylinder, to prevent, when the lamp is agitated, the flame from reaching the outer one, which forms the case of the lantern. L L, is the glass cylinder, the bottom of which is connected to the brass ring, r r, by gutta percha or caoutchouc, and in the centre of the top is an opening connected with the funnel, covered with wire gauze. Another cover of sheet-iron is so arranged over the lantern, as to allow a constant draught of fresh air to pass round the funnel; d d, are the wire gauzes, which form the bottoms of the lantern and burner, and the cover of the funnel, where the products of combustion escape. There is thus a continuous current of fresh air through the interior, which keeps the whole cool. The bottom opens to light the lantern, which is to be done before the miner enters his stall; g g, are iron rods, by which the top and bottom are screwed together; and f is a balance-piece, which also forms a handle. The reservoir for containing compressed gas to a pressure of from 15 to 20 atmospheres, for supplying the lantern, consists of two concentric cylinders, the annular space between forms a spiral hollow vessel, into which the compressed gas enters for expansion by the cock, d. By this arrangement a large surface is exposed to the atmosphere, by which the altered temperature of the expanding gas is brought to its natural condition. The gas is admitted to the lamp by a brass tube and flexible joint, attached to the top of the spiral; and the reservoir, which will contain several days' supply, may be left in the stall, when the miner finishes his periodical labour. As, however, under the most perfect arrangement, some occasional accidents from explosions must be expected, a plan is proposed for adoption, under which the miner would have at his command a supply of pure air, whatever sudden changes or conditions of the ventilation might render the atmosphere of the mine deleterious.

It is suggested to have similar reservoirs to the one above described in various parts of the mine, but filled with compressed air, instead of gas, and of such a size that, by a leathern belt passing through the handles, it can be in a moment of danger buckled on to the back like a knapsack. The regulator in this case would be attached to the reservoir, from which, by a flexible tube and respirator, the miner would be supplied with an abundance of pure air, while surrounded by a fiery or carbonaceous and poisonous atmosphere.

Fig. 1 and 2 is a front and side elevation of the respirator. By pressing the mouth against the oblong front, b c, and the nose into the angular box, d, which is lined with caoutchouc, the nostrils are closed; and by the inspirating valve, e, and expirating valve, f, the person breathes freely pure air from the reservoir, while the products from the lungs pass off through the partition, c. The same apparatus would be highly efficient for opening old closed wells, cellars, or caverns, entering brewer's vats, and other operations in which foul air so often proves fatal to human life.

RAILWAYS IN SOUTH AMERICA.—The first rails on the Panama Railroad were laid on the 24th Feb. A locomotive and tender were landed by the Port Admiral, Walford, on Washington's birthday. Most of the labourers on the railroad had been ill with the fever, but were generally convalescent. The Copiapo Railroad is making very satisfactory progress. About four miles of track have been laid already. The first ship-load of timber from the southern provinces of this country had arrived at Caldera; a second, from Chiloe, was expected to follow very soon. The survey of the route for the Santiago Railroad has been commenced. The surveying party have already carried their line as far as Vina del Mar. They are actively engaged upon it, and will soon reach the mouth of the Concon river. Hitherto no insuperable difficulties have been encountered. The railway between Callao and Lima is progressing rapidly, and will be concluded probably in April.

From experiments made on the wires of the electric telegraph of the Versaille Railway, the mean quickness of sound has been ascertained to be 3485 metres per second; more than double the speed laid down by Newton, Halley, Duhamel, and others.

## THE BOGHEAD CANNEL COAL.

An interesting and valuable discovery has been made in the neighbourhood of Bathgate of a Cannel coal, superior in gas-producing properties, both for quantity and illuminating power, to any coal in the kingdom. There has long been a tradition in the locality, a few miles west of Edinburgh, that a coal formerly existed—pieces of which the inhabitants carried about like torches to light them through the streets; but the most sagacious had never been able to discover any remains of such coal seam, until Messrs. Russel and Son unexpectedly came upon a queer looking seam of some mineral, hard, light, and of a dull brown colour, which turns out to be a Cannel coal of a most extraordinary kind, and the most valuable in the kingdom. The seam is only 15 in. thick; but slips of it ignite like a piece of pine, giving out a brilliant flame. The quantity of gas yielded by it from retorts is much larger than from the best English coal, and produces double the light—a ton yielding gas equal to 507,000 spermaceti candles. Its general properties may be understood by the following inscription, engraved in English, French, and German, on a block, which has been forwarded to the Exhibition:—

This coal is raised at Boghead, near Bathgate, a few miles westward of Edinburgh, in Scotland. It is the most highly bituminous coal known, and, therefore, peculiarly adapted for the manufacture of gas, for which it is exclusively used. It yields 13,500 cubic feet of gas (being considerably more than is mentioned in the published analysis), of the specific gravity of 775 (air being 1) per ton of coal; and a burner consuming at the rate of 1 cubic foot per hour, gives a light equal to 84 spermaceti candles, each consuming 120 grains of sperm per hour. The light yielded by 1 ton of this coal is equal to 1990 lbs. of sperm candles, being nearly five times more than from the same quantity of Newcastle coking coal, and upwards of 24 times greater than the best Wigan Cannel coal.

The greater quantity of gas yielded, and its increased illuminating power, renders it nearly four times as valuable as the best gas coal hitherto used, and a saving of carriage is effected by its larger quantity of gas per ton. The gas is too oleaginous to be used alone, and renders it highly valuable in the English markets for mixing with the poorer and drier sorts of coal. Already, we understand, large contracts have been entered into to supply the London companies, and extensive operations are being carried on for extracting the coal. The estate of Balbardie, and other properties in the locality, are being actively explored, and much mineral wealth is expected to be developed. Experiments and analyses have been made by Drs. Fyfe and Penny, and Mr. Alfred King—giving volatile matter, 69; coke, 31=100; the coke containing 30 per cent. of carbon, and 70 per cent. of ashes. These, again, consist of 71 per cent. of silica, and the remaining 29 per cent. of lime, alumina, magnesia, and a minute portion of iron, in union with sulphur, about 3 lbs. to the ton of coal. A cubic foot of gas burns 88½ minutes, giving light equal to 7.72 sperm candles; and, after passing the lime purifiers, does not contain a trace of sulphur. The best English coking coal only gives a light equal to 2.73 candles.

## IMPROVED BOILER-SUPPLY APPARATUS.

That a regular and efficient supply of water to the boilers of steam-engines is one great panacea for the prevention of explosions is generally admitted, and it is also well known that few of the means at present adopted are efficient for the purpose. To supply this great want, Mr. Gray, an engineer of Glasgow, has patented an apparatus which, while extremely simple, is said to be highly effective. It consists of an open iron cistern, holding about 10 gallons, placed close over the top of the boiler. In the centre is a cylindrical vessel, containing 3 gallons, communicating with the interior of the boiler by two pipes of different sizes, the smaller being a steam-pipe which just enters the boiler, and passes to the top of the cylinder; the larger one reaches nearly to the bottom of the boiler, and just enters the cylinder. To the top of each tube is a conical valve opening downwards, and in the bottom of the cylinder is a valve opening upwards, to admit water from the cistern. A lever about 4 ft. long is jointed to a bracket on the edge of the cistern, forked at one end to support a flat oblong copper vessel, called a tundish, holding about 2 gallons of water, and so hung as to empty its contents on descending, and on the other end is a weight heavier than the tundish when empty. Water is supplied to the latter by a pipe having a cock and ball float, which regulates the discharge. Supposing the copper vessel to be full, its weight overcomes the upward pressure of steam on the small valve, and opens it, the lever is depressed, the water valve is opened, and any water in the cylinder will descend into the boiler, and the vessel be filled with steam. In descending, the tundish is tilted, and the water emptied into the cistern, the counter-balance weight then raises the lever and empty tundish back to their original position, closing the valves. A vacuum is soon formed in the cylinder by being immersed in the cold water cistern, and water flows in from the cistern through the valve at bottom until full; the float opens the cock of the feed-pipe, filling the tundish, which again descends, and thus a constant self-acting motion is kept up, always giving a regular supply. Should the water in the boiler rise above the bottom of the small steam pipe, hot water would be forced up into the cylinder instead of steam, and the action of the apparatus would be retarded until the supply was again needed, when the same operation would be repeated. It is stated to be economical in cost, not liable to get out of order, and in every way a most effectual piece of mechanism.

## BIRAM'S PATENT ANEMOMETER, FOR MEASURING THE CURRENT OF AIR IN MINES, &amp;c.

THIS INSTRUMENT IS CONSTRUCTED so that the ACTION of a CURRENT of AIR on EVERY PART of the VANES may tend to PRODUCE a REVOLUTION of the WHEEL in the same time—the number of feet which have passed through the wheel being shown by indices which revolve on the dial plate underneath the handle.

Further particulars, with references, may be had on application to the patentee.

## BIRAM'S MINER'S LAMP, COMBINING LIGHT, SAFETY, AND ECONOMY.

THE PATENTEE respectfully solicits the attention and patronage of COAL PROPRIETORS to the above LAMP—the LIGHT from which will be found FOUR-FOLD that of the Davy Lamp—the SAFETY SUPERIOR, and the COST IN OIL not ONE-HALF the expense of candles, even when burning free from draft; whilst, from the light being shielded from the wind, a current of air, inadmissible where naked candles are used, may be passed through the galleries of a mine without inconvenience. BEN. BIRAM. Wentworth, near Rotherham.

## IMPROVED LIFTING JACKS.

MANUFACTURED BY W. AND J. GALLOWAY, PATENT RIVET WORKS, MANCHESTER.

## The attention of parties who employ Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use.

KEATING'S COUGH LOZENGES.—A certain remedy for Disorders of the Pulmonary Organs, in Difficulty of Breathing, in Redundancy of Phlegm, in Incipient Consumption (of which cough is the most positive indication), they are of unerring efficacy. In Asthma, and in Winter Cough, they have never been known to fail.—Prepared and sold in boxes, 1s. 14d., and tins, 2s. 9d., 4s. 6d., and 10s. 6d. each, by Thomas Keating, chemist, &c., No. 79, St. Paul's Churchyard, London.—Sold retail by all druggists and patent medicine vendors in the kingdom.

## IMPORTANT TESTIMONIAL.

Longparish House, near Whitechurch, Hants, October 21, 1846. Sir,—I cannot resist informing you of the extraordinary effect I have experienced by taking only a few of your Lozenges. I had a cough for several weeks, that defied all that had been prescribed for me; and yet I got completely rid of it by taking about half a small box of your Lozenges, which I find are the only ones that relieve the cough without deranging the stomach or digestive organs.—I am, Sir, your humble servant, P. HAWKER.

To Mr. Keating, 79, St. Paul's Churchyard.

Copy of a Letter from Dr. Locock, dated 26, Hertford-street, Mayfair, Feb. 17, 1851. Sir,—In reply to your inquiry, I have no hesitation in assuring you, that the Pulmonic Wafers, Female Wafers, Antibilious Wafers, or Female Pills, that have so often been advertised with my name, are not mine, nor do I know anything of their composition, nor have I anything whatever to do with them, either directly or indirectly.—Yours, &c. To Mr. Keating, 79, St. Paul's Churchyard. CHARLES LOCOCK, M.D.



**DEVON CONSOLS NORTH COPPER MINES, LAMERTON, DEVON.**

The lodes of which are parallel with, and one of them less than 200 fathoms from the main lode, of the Devon Great Consols, from which upwards of £300,000 worth of ore has been raised since 1845.

In 5000 shares—3000 of which have been taken up by shareholders in Devon Great Consols, and other mines in the immediate neighbourhood. The remaining 2000 shares will be issued to unexceptionable parties at £2 10s. each, which includes a call of 10s. per share, already made on the whole 5000 shares, to be applied for working expenses.

To be worked on the "COST-BOOK SYSTEM" of the county of Cornwall.

**COMMITTEE.**

Chairman—FRANCIS MORRIS, Esq., a Director of the Devon Great Consols.

W. E. BELL, Esq. } NATHANIEL IRON, Esq.  
T. HARVEY, Esq. } RICHARD HALLETT, Jun., Esq.

Bankers—Messrs. Barnett, Hoare, and Co., 62, Lombard-street.

Managing Agent—John Fitch, Esq., Tavistock.

Purser—John Fitch, Jun., Esq., Callington.

OFFICES.—16, ST. DUNSTON'S-HILL, TOWER-STREET, LONDON.

Further information will be afforded at the offices of the Company, 16, St. Dunston's-hill, Tower-street, where applications for prospectuses, and for the unappropriated shares, may be made, addressed to the committee.

**DEVON CONSOLS NORTH COPPER MINES, LAMERTON, DEVON.**

NO FURTHER APPLICATIONS FOR SHARES WILL BE RECEIVED AFTER MONDAY NEXT, THE 7TH INST.—APRIL 1, 1851.

**LANIVET CONSOLS COPPER MINE.**

TAUNTES.—Mr. R. BRAY, Town Clerk, Bodmin.

Mr. J. H. LIDDELL, Bodmin.

Applications for shares to be made to Mr. T. Allsop, 1, Royal Exchange buildings.

NO APPLICATIONS RECEIVED AFTER MONDAY NEXT, THE 7TH INST.

**WHEEL CARADON COPPER, ST. CLEER, CORNWALL.**

Divided into 5000 shares.—Deposit £1 per share.

2500 of which are retained by the present proprietors—the remaining 2500 will be issued to the public at £1 each, which includes a call of 5s. per share.

CONDUCTED ON THE COST-BOOK SYSTEM.

**COMMITTEE OF MANAGEMENT.**

NATHANIEL IRON, Esq., 16, St. Dunston's hill.

MR. SHERIFF HODGKINSON, 74, Cornhill, London.

J. REYNOLDS, 15, Old Broad-street.

Bankers—Barclay, Bevan, & Co., Lombard-street, London; Devon & Cornwall, Liskeard.

Purser—Edward Anson Crutch, of West Caradon, Liskeard.

Managing Agent—Capt. Henry Taylor, of West Caradon.

This mine is held by lease from Richard Dodge, Esq., at 1-14th dues, and is situated in the neighbourhood of Liskeard, on the eastern slope of the Caradon Hill, near the village of Caradon, and near to the well-known South and West Caradon, and other rich and dividend-paying mines, and immediately adjoining Tokbury. There are several lodes running through this set; the principal one is the same as the main lode in South Caradon being a continuation of it, the works of which are at no great distance. The direction and contents of the lodes in both mines are in favour of its identity as one lode, from which some fine stones of copper ore have been taken.

The set of Wheel Caradon consists of the estate of South Yeoland and part of Tokbury, as far south and including the new G lode.

The main lode of this mine was worked a few years since, 50 fathoms deep, by means of a water-pressure engine, but as half the mine was held by the adventurers in the neighbouring mine of Tokbury, when this mine was suspended the working of Yeoland Consols was necessarily stopped also: since that time the name of Yeoland Consols has been adopted for a mine in Devonshire, and it is, therefore, proposed to call the Cornish mine Wheel Caradon. Although 50 fathoms was reached by means of the pressure-engine, only one part of the lode was cut at that depth, and no cross-cuts were extended either at that or the 30 fathom level. One branch of the main lode has been driven on west towards Caradon Hill, and is a most promising lode, 2 feet wide; it is proposed to cut this south branch of the main lode, and if there is not power sufficient to sink and drive on it, and cut a large lode not seen under adit, and only a few fathoms distant, then to apply for the aid of Tokbury steam-engine, from which rods to Wheel Caradon can easily be taken.

The discovery of copper ore in granite, at Phoenix, to the east of Caradon Hill, increases the prospects and certain success of Wheel Caradon.

This company will commence operations under peculiarly advantageous circumstances, as all the machinery and materials requisite for the future working are already on the mine, and which can be immediately set to work, the present proprietors being willing to dispose of one-half their interests at £1 per share. This sum, after providing for all expenses hitherto incurred—as purchase of machinery, materials, &c., now on the mine, and work already done, which has cost from £3000 to £4000—will leave an available amount of £1250 for working capital, which is considered amply sufficient to bring the mine into a profitable and dividend-paying state, which this company will necessarily derive the advantage of, both with regard to time and money.

Looking at the relative position of this mine, and keeping in view the several promising lodes running through it, more particularly that of the main lode at South Caradon, which greatly enhance the value of this property, and from the appearance of the lodes in the present levels, and from other indications, which are precisely the same character as South and West Caradon, there can be no hesitation in saying that this mine is likely to prove equally as productive and profitable to the adventurers.

Application for shares to be made to T. Fuller and Co., 51, Threadneedle-street, London; and to J. J. Sims and Co., Tavistock; of whom prospectuses, with all particulars, may be obtained.

**WEST TAMAR SILVER-LEAD MINING COMPANY, CORNWALL.**

This mine is divided into 1024 shares, of which 524 will be disposed of at 30s. per share and to be conducted on the "Cost-book System."

Purser—Mr. John Wymond.

Agent—Capt. John Hambly.

Bankers—Hodge and Co.

This is a silver-lead mine, situated in the parish of Landulph, in the county of Cornwall, and adjoins that of the South Tamar Mine, under the River Tamar. The ore-floors, &c., will be on the bank of the Tamar, from which all the produce will be shipped, and supplies received; therefore, if the advantage of locality be taken into account, as compared with some mines in the county, from the fact that the mine is situated in land carriage. This set is about a half-a-mile north and south on the run of the lodes, as a mile east and west in ducy lands, and bounded by the best lead mines in Devon, South Tamar, from which they are returning 90 tons of rich ore per two months, and nearly the whole of it taken from the ends driving towards this mine; and the farther they drive south the richer the lode appears to be, running into this new mine, from which there is not the least doubt there will be, in a short time, large quantities of ore risen.

In this mine there is an adit being driven about 20 fms.; the lode is from 3 to 4 ft wide, with well-defined walls, composed of soft blue kilas, and the lode is now producing some beautiful silver-lead near the surface. A small steam-engine will be required for effectually working the same.

This set is held under the Duchy of Cornwall, by a letter of licence at 1-12th dues, with a promise of their being reduced when the lease is taken up.

It is the intention of the present proprietors to dispose of 524 shares (so that the parties coming in may have a majority), at 30s. per share, and that 20s. per share be paid to the present company, and 10s. be applied to the working of the mine.

A plan of the set may be seen at Mr. John Wymond's office, Callington, the purser; Capt. Hambly, Callstock; or at Mr. J. Gibson's, No. 9, Catherine-street, Devonport, to whom application for shares may be made.

No application will be received for less than four shares. The following reports have been received from the several mine agents whose names are attached hereto. Any parties wishing to become adventurers, will have every opportunity of inspecting the mine, as the proprietors court enquiry.

**REPORTS.**

West Tamar Mine, Feb. 28.—This mine is situated on the west side of, and abutting on, the River Tamar, in the parish of Landulph, and about eight miles from Plymouth. The set is very extensive, a mile from east to west, and half-a-mile from north to south. There are great advantages in working this mine, as all materials and machinery may be imported, and the ore exported, without the expense of land carriage. There are three lodes in the set, two of them are east and west courses, and one north and south. Of the two former but little can be said, as the work done on them is very limited; but I have been informed that stones of copper have been taken from one of these lodes, in draining one of the fields. The latter is evidently the South Tamar lode, which is well known to have yielded great quantities of silver-lead ore, and at the present time leaving a good profit to the adventurers. The present advantages have been driven a level 20 fms. on the course of this lode, which has been productive of rich stones of lead; in the present end the lode is from 3 to 4 feet wide, composed of flookan, spar, and munde, intermixed with lead in such quantity as is seldom found so very near the surface. I believe this to be a very good set, and can strongly recommend it; and, with regard to future working, I would advise the continuance of driving on the course of this lode as a head—there is a rise of ground from 35 to 40 fms. Those backs will be gained in driving from 150 to 200 fathoms, and at this point I believe this lode will prove productive, and if so this ground may be all taken away, and the mineral returned without machinery for pumping. This ground will not be expensive for working, as the present end is now in the course of driving for 15s. per fathom, and my decided opinion is that a small outlay will realise a profit to the adventurers.

JOSEPH EDDY.

Callstock, March 31.—I have this day, according to your request, inspected the West Tamar Mine, in the parish of Landulph, in the county of Cornwall. The locality and situation are good, being near the best silver-lead mines in the county of Devon. This set is extensive, running north and south on the course of the lodes, and about a mile east and west. The lodes of the Tamar Consols Silver-lead Mines, from which immense quantities of rich ores have been sold, and are still profitably working 200 fathoms below surface, are running direct into the west ground of this mine. This set also adjoins the South Tamar Silver-lead Mine, from which they are now making large returns of rich silver-lead ore. The same lode runs direct into the West Tamar Mine, on which I find you have driven an adit end in this mine about 20 fms., in a soft blue kilas, most congenial for silver-lead, the lode is from 3 to 4 feet wide, well-defined walls, and producing good samples of ore near the surface, and strong indications of a rich lode below. A small engine should be erected near the river, and by sinking 30 fms., and exploring the lode north and south, I think I am justified in saying, from the locality and present appearance in the adit end, there can be no doubt but this will make a profitable and lasting mine.

JOHN HAMBLI.

Wheal Langmed, March 27.—According to your request, I have inspected the West Tamar Mine set. I find that the set extends about half-a-mile on the course of the lode, and nearly a mile from the east to the western extremity. I have inspected the lode, which has been opened for about 20 fathoms by an adit opening in the cliff. I find it to be a very promising lode, about 4 feet wide, composed of flookan and goasan, strongly impregnated with silver-lead ore (with leaders of spar, also containing lead); but the adit, which is being driven, is gaining but little depth. I would, therefore, recommend that a shaft be sunk, and I have no doubt that, in about 10 or 12 fathoms depth, according to the very promising appearance of the end at present, a regular course of ore might be cut. Having had upwards of 50 years' experience in the South Tamar Mine (or Covel), I can confidently assert that, according to appearances, this lode is a continuation of that which is now so profitable in the South Tamar, every indication speaking it to be as good a speculation in every point of view.

B. ROBINS, Senior.

**NEW WHEEL ROSE, ST. ALLEN, CORNWALL.**

Divided into 5000 shares.

CONDUCTED ON THE COST-BOOK PRINCIPLE.

The proprietors of the above mine have determined on disposing of one-half their interest therein, being 3000 shares, at £2 per share, to increase their capital, for the purpose of erecting a large and powerful steam-engine, and for the vigorous prosecution of this valuable property.

Bankers—Messrs. Masterman, Peters, & Co., Nicholas-lane, Lombard-street, London.

Secretary—Mr. James Truscott, Jun.

Managing Agent—Captain Richard Clymo.

OFFICES.—No. 1, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.

Perran Porth, March 10.—This mine is situated in the parish of St. Allen, in the county of Cornwall, about 5 miles north of Truro, in a beautiful valley all its length, and situated to the west and south-west of the well-known Wheal Rose Silver-lead Mine on the west. On the north part of this set are the old Wheal Rose lodes, and near the centre the Cornubian lodes. The set is very extensive, in an east and west direction, nearly a mile in length, and the same in breadth. The set is generally composed of a soft elvan, most decidedly congenial for lead. Eight east and west lodes have already been opened upon, two of which have been sunk on; they were found to be large lodes, composed of flookan, priam, spar, munde, and fine lead, in a beautiful stratum of ground, good for lead: there are also five north and south lodes opened upon in this set, which present a very promising appearance; and there remains but very little doubt that they will prove very rich for silver-lead.

In taking a general view of the surface appearance, and the lodes already opened upon, I do not hesitate in saying that it is an excellent investment, such as cannot be surpassed. The greater part of the lodes in this set can be proved by putting up an engine; and I have every reason to believe it to be one of the best mines in this district.

RICH. CLYMO.

March 10.—Our attention has been called by you as to the prospects of New Wheel Rose. We perceive the set to be extensive, and the locality to be good, and particularly for lead, being in the vicinity of Chilverton and the East Wheal Rose Silver-lead. There are lodes discovered producing lead, munde, flookan, &c., which augurs favourably for deeper levels; and we approve of the operations commenced by Captain Richard Clymo, in sinking the present shaft, to see the lodes 12 or 15 fathoms below the surface, by manual or horse-power, previous to the erection of a powerful steam-engine, which operation we recommend to be carried out with the greatest dispatch, and which will be a guide to your future operations.

JOHN MIDDLETON, East Wheal Rose.

JAS. EVANS, St. Agnes.

Applications for shares to be made to Mr. Alfred Lyons Bellinger, No. 1, St. Michael's-ally, Cornhill, London.

**NORTH TAMAR CONSOLS SILVER-LEAD AND COPPER**

MINING COMPANY.—BEERFERRISS, DEVON.

Divided into 2000 shares.—Dues 1-15th.

CONDUCTED ON THE COST-BOOK SYSTEM.

**COMMITTEE PRO TEM.**

W. RONALD, Esq., Forbes, Aberdeen.

W. BUDDEN, Esq., Winchester.

MR. JOSIAH SIMS, Tavistock.

Captain T. SPRAGUE, Tamar Silver-lead Mines, Beerferri.

Purser—Mr. W. A. Palmer, Tavistock.

Agent—Capt. John Hambly, Callstock.

Bankers—Devon and Cornwall Banking Company, Tavistock.

This is a SILVER-LEAD AND COPPER MINE, from which rich silver-lead ore has been raised, which sold for £35 per ton, and was rich for silver, and the undertaking offers no other valuable prospect to capitalists and others, being situated in the best mining neighbourhood in the county of Devon, and adjoining the celebrated Tamar Silver-lead Mines, from which thousands of tons of silver-lead have been raised, and whose agents, together with others, have inspected and spoken very highly of the concern; and it is believed that only a small outlay will be required to bring the mine into a profitable working, and pay dividends to the adventurers.

Application for the remaining shares to be made immediately to Messrs. Josiah Sims and Co., mining agents, Tavistock, Devon, from whom reports and every information can be obtained.

**PENCRAIG LEAD MINING COMPANY, LLANRWST, NORTH WALES.**

Divided into 1500 shares, at £8 per share.

CONDUCTED ON THE COST-BOOK SYSTEM.

**COMMITTEE OF MANAGEMENT.**

EDWARD WYNNE THOMAS, Esq., Oswestry—Chairman.

EDWARD MORRIS, Esq., Mayor of Oswestry.

JOHN ROBERTS, Esq.

THOMAS MINSHULL, Esq., solicitor, Oswestry.

MR. RICHARD EVANS, Oswestry.

Purser—E. W. Thomas, Esq.

Secretary—Bell Williams, Esq.

Bankers—The North and South Wales Bank.

OFFICES OF THE COMPANY.—No. 16, CASTLE-STREET, LIVERPOOL.

With a view more fully to DEVELOPE the resources of this well-known MINERAL DISTRICT, an arrangement has been entered into with the original proprietors of these mines to have them worked by means of an industrial Public Company. The present proprietors to receive for their interest in the mine (being the cost of purchase and the value of machinery, material, &c.) the sum of £10,500, of which £8000 is taken in shares in the new undertaking—thus at once taking up 1000 shares, leaving £1500 as a reserved fund; of this £500 is deemed sufficient to carry out all the works suggested in Captain Davey's report, and develop a large extent of minerals on these lands, proved to be intersected, as shown upon the plans and sections, with several valuable lead lodes—one only of which is now worked, and from which, at the present shallow depth of 32 yards, near £2000 worth of ore has been sold, in working comparatively but a short time. This vein has been well proved by two levels and a shaft on its course. On the lower level the improvement is very decided, from whence much the largest portion of the produce has been obtained. No lead has yet been wrought downward on this level—thus leaving many thousands pounds worth of ore in sight.

These trials have induced the original proprietors to continue sinking on the engine-shaft; it is now sinking through the vein, at 9 fathoms under the lowest level; the ore here fully bears out the expected improvement in depth, and justifies the confidence of finding a large and valuable deposit there.

The present water-power machinery, as will be seen by the report, is sufficient to accomplish all the contemplated works for draining the mine, crushing and dressing the ore—leaving the steam-engine on the works in reserve.

Applications for the remaining shares to be made to the secretary, Mr. Bell Williams, 16, Castle-street, Liverpool, from whom plans and prospectuses can be obtained.

**FORM OF APPLICATION.**

SIR,—I request you to allot me shares in the "Pencraig Lead Mining Company," or any less number than you can allot me; and I hereby agree to pay the amount of call on such shares.

Name in full.....

Address.....

Occupation.....

Dated this..... day of..... 1851.

REPORT OF CAPT. GEORGE DAVEY.

To the Proprietors of the Pencraig Lead Mines.

Llanrwst, March 6.—Having forwarded you a section of the mine workings, with remarks on the machinery, depths of the shafts, driving of the lodes, &c.; also showing a proposed line for a new adit level, to be commenced about 30 yards down the stream, south-west of the present shaft, at an extreme extent of land granted to the Company by George Davey, Esq., who, after seeing the plans and walking over the ground, consented to the proposal, provided the land was preserved from any further encroachments than was allowed, agreed on, and specified in the lease of the mine.

When this level is complete, the whole of the water will be discharged through the same depth of 32 yards from the top of No. 1 shaft, instead of being pumped, as at present, near the surface, or within two yards of the said top of the shaft. There will also be 40 yards fall for a pressure engine, from the higher pool to the 32 yards level, which will perform duty, raising water from the mine, and using 50 gallons of water per minute to what the wheel now requires 400 gallons—being eight times the effective power as at present, sufficient to work for several years, and likely 100 yards deeper on all the lodes connected with the shafts Nos. 1 and 2.

The principal workings have been on what is called on the plans the north lode, as lettered on the line of the run—therefore, nearly east and west directions, which I consider to be the main or leading lode in the mine. The lode varies in width from 6 to 18 inches, but this lode is 2 feet wide in some places. In working the backs there is sufficient room for miners to work without breaking the walls on either side.

There is another lode parallel to this, which may be traced from the plantation north of the farm-house at Pencraig to the eastern boundary of the set, on which there are old workings, as noticed on the map.

The distinction of north and south lodes must only be known from No. 1 westward, as, from the intersection which takes place near No. 1, it is reversed. From No. 1 shaft the 32 yards level is driven 30 yards south-west on the south lode, as lettered on the line crossing the higher pool—15 yds. of which have been productive, as may be observed on the section running from north-east to south-west.

There is also another parallel lode, more to the north, which is to be seen in the river above Pencraig House, the direction of which, by tracing or dialling, must be within a few yards east of the said No. 2 shaft. The Fifth lode also crosses the field to the west of No. 2 shaft, in a direction running from south-east to north-west.

There are also two cross-courses, one almost to the extreme east part of the set, from the range of old workings near the boundary south of the house by Llanrwst-road, has been producing from time to time large returns of ores. The other parallel cross-course is to be seen by the lower pool, and crosses the road, west of the boundary of the set, but can trace no workings thereon. There is also a large range of elvan running through the set on which No. 2 shaft is sunk—marked with a green shade on the plan—making a better produce, with less sulphur, and reduced charges in the washing and dressing.

You have the advantage of a good road for the cartage of ores to Trenew, 3 miles, for shipping, with every convenience for the dressing, also a crushing apparatus attached to the wheel. As the mine can be worked so very economically in the pumping, &c., having such good opportunities for application of water-power, and opening a level at a moderate expense, my opinion is, that it will turn out a very profitable concern.—Hoping it will give entire satisfaction to the spirited adventurers, I remain, &c.

GEORGE DAVEY.

P.S.—Many great and good mines have been discovered in similar valleys—two of the most productive and profitable in Great Britain, now working, may be named in the number—viz., Great Devon Consols (or Wheal Maria) Copper Mine, Devonshire, and East Wheal Rose Silver-lead Mine, Cornwall.

Labour cost for the year, say..... £ 800 0 0

Lord's dues..... 200 0 0

Leaving a clear profit of..... 1000 0 0

Total..... £ 2000 0 0

I consider this part worked is below the average returns of what may reasonably be expected from the future operations. After the completion of the level, having five good lodes intersecting each other so near the No. 2 shaft, from the present favourable appearance, we may calculate that 100 men may be set to work on the different lodes upon similar terms and very probably at a lower scale, as the ore improves in depth—making a better produce, with less sulphur, and reduced charges in the washing and dressing.

You have the advantage of a good road for the cartage of ores to Trenew, 3 miles, for shipping, with every convenience for the dressing, also a crushing apparatus attached to the wheel. As the mine can be worked so very economically in the pumping, &c., having such good opportunities for application of water-power, and opening a level at a moderate expense, my opinion is, that it will turn out a very profitable concern.—Hoping it will give entire satisfaction to the spirited adventurers, I remain, &c.

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Leaving a clear profit of..... 1000 0 0

Total..... £ 2000 0 0

I consider this part worked is below the average returns of what may reasonably be expected from the future operations. After the completion of the level, having five good lodes intersecting each other so near the No. 2 shaft, from the present favourable appearance, we may calculate that 100 men may be set to work on the different lodes upon similar terms and very probably at a lower scale, as the ore improves in depth—making a better produce, with less sulphur, and reduced charges in the washing and dressing.

You have the advantage of a good road for the cartage of ores to Trenew, 3 miles, for shipping, with every convenience for the dressing, also a crushing apparatus attached to the wheel. As the mine can be worked so very economically in the pumping, &c., having such good opportunities for application of water-power, and opening a level at a moderate expense, my opinion is, that it will turn out a very profitable concern.—Hoping it will give entire satisfaction to the spirited adventurers, I remain, &c.

GEORGE DAVEY.

P.S.—Many great and good mines have been discovered in similar valleys—two of the most productive and profitable in Great Britain, now working, may be named in the number—viz., Great Devon Consols (or Wheal Maria) Copper Mine, Devonshire, and East Wheal Rose Silver-lead Mine, Cornwall.

Labour cost for the year, say..... £ 800 0 0

Lord's dues..... 200 0 0

Leaving a clear profit of..... 1000 0 0

Total..... £ 2000 0 0

I consider this part worked is below the average returns of what may reasonably be expected from the future operations. After the completion of the level, having five good lodes intersecting each other so near the No. 2 shaft, from the present favourable appearance, we may calculate that 100 men may be set to work on the different lodes upon similar terms and very probably at a lower scale, as the ore improves in depth—making a better produce, with less sulphur, and reduced charges in the washing and dressing.

You have the advantage of a good road for the cartage of ores to Trenew, 3 miles, for shipping, with every convenience for the dressing, also a crushing apparatus attached to the wheel. As the mine can be worked so very economically in the pumping, &c., having such good opportunities for application of water-power, and opening a level at a moderate expense, my opinion is, that it will turn out a very profitable concern.—Hoping it will give entire satisfaction to the spirited adventurers, I remain, &c.

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I consider this part worked is below the average returns of what may reasonably be expected from the future operations. After the completion of the level, having five good lodes intersecting each other so near the No. 2 shaft, from the present favourable appearance, we may calculate that 100 men may be set to work on the different lodes upon similar terms and very probably at a lower scale, as the ore improves in depth—making a better produce, with less sulphur, and reduced charges in the washing and dressing.



## PRICES OF MINING SHARES.

It being difficult to obtain a correct knowledge of all the mines in our list, we trust that agents, and others interested, will assist us, by forwarding any additions, or corrections, with which they may be acquainted—our object being to present it as accurate as possible. We have also added a column to note the actual business transacted; but which, without the constant assistance of brokers and agents, cannot become so complete as we could wish. The desirability of such a record is generally admitted, and we invite the co-operation of all parties concerned, in rendering it perfect.

Shares.	DEVON DISTRICT.	Paid.	Last Price.	Present Price.
3000	Aylsborough (tin), Sheepshead .....	10	10	10
4000	Bedford United (copper), Tavistock .....	10	7 1/2	8 1/2
1200	Birch Tor and Viller (tin), Dartmoor .....	10	4	4
1000	Bottle Hill (copper), Plymouth .....	10	1 1/2	1 1/2
2000	Boringdon Park (silver-lead), Plymouth .....	10	1 1/2	1 1/2
4160	Devon and Courtney Consols (copper) .....	10	1 1/2	2 1/2
1000	Devon Great Consols (copper), Tavistock .....	10	305	305
760	Devon Great Tincoff, North Bovey .....	10	6	6
250	East Birch Tor (tin), North Bovey .....	10	3	3
2048	East Crowndale (tin), Tavistock .....	10	3	3
4000	East Gannals Lake Junction (copper) .....	10	1 1/2	1 1/2
9000	East Tamar Consols (silver-lead) .....	10	1 1/2	1 1/2
2048	East Wheel George (copper), Walsingham .....	10	10	10
512	East Wheel Josiah (copper), Tavistock .....	10	1 1/2	1 1/2
4000	East Wheel Russell (copper), Tavistock .....	10	5 1/2	5 1/2
1000	Exmoor Eliza (copper), South Molton .....	10	1 1/2	1 1/2
1000	Forest (copper and silver-lead), Devon .....	10	1 1/2	1 1/2
1800	Hennock (silver-lead), Hennock .....	10	3	3
1000	Kingzett and Bedford (lead and copper) .....	10	2 1/2	2 1/2
1748	Lamherose Wheel Maria (copper & tin) .....	10	10	10
2000	Mollard .....	10	3 1/2	3 1/2
6000	Nap Down (silver-lead), Combarthin .....	10	1 1/2	1 1/2
5000	New Copper Bottom (copper) Bridestown .....	10	1 1/2	1 1/2
2048	New East Crowndale (copper and tin) .....	10	1 1/2	1 1/2
2000	North Tamar Consols (silver-lead & cop.) .....	10	1 1/2	1 1/2
1000	North Wh. Robert (copper), Walsingham .....	10	2 1/2	2 1/2
512	Old Brimptons (tin), Lydford, near Ashburton .....	10	12	12
1000	Peter Tavy and Mary Tavy (copper) .....	10	6 1/2	6 1/2
512	Plymouth Wheel Yeolad (tin), Plymouth .....	10	6	6
2048	Runnall's Consols (tin) .....	10	3 1/2	3 1/2
250	South Friendship Wh. Ann (copper & tin) .....	10	28 30	28 30
350	South Molton (lead) .....	10	7	7
1000	South Plain Wood (copper), Ashburton .....	10	2 1/2	2 1/2
9000	Tamar Consols (silver-lead), Boreham .....	10	4 1/2	4 1/2
687	Tavy Consols (copper), near Tavistock .....	10	2 1/2	2 1/2
1000	United Mines (copper and tin), Tavistock .....	10	10	10
1000	West Down (copper and tin), Whitechurch .....	10	1 1/2	1 1/2
1000	West Sharp Tor .....	10	3	3
1000	West Wheel Friendship (copper) .....	10	3 1/2	3 1/2
4000	West Wheel Russell .....	10	1 1/2	1 1/2
1000	Wheel Adams (lead), Christow, Exeter .....	10	1 1/2	1 1/2
1000	Wheel Carpenter (copper), Tavistock .....	10	2 1/2	2 1/2
1000	Wheel Crober (copper), Tavistock .....	10	8 1/2	8 1/2
1000	Wheel Emily (antimony and lead) .....	10	5 1/2	5 1/2
1000	Wheel Fortescue (copper), Tavistock .....	10	1 1/2	1 1/2
760	Wheel Franco (copper), near Tavistock .....	10	10 1/2	10 1/2
126	Wheel Friendship (copper) .....	10	10	10
1000	Wheel Hamlyn, near Oakhampton .....	10	1 1/2	1 1/2
2048	Wheel Harris (lead), near Tavistock .....	10	1 1/2	1 1/2
2000	Wheel Langmill (lead) .....	10	8	8
1000	Wheel Mary Ann (copper), Bridestown .....	10	2 1/2	2 1/2
1000	Wheel Mary Ann (copper), Tavistock .....	10	2 1/2	2 1/2
210	Wheel Prospect .....	10	7	7
5000	Wheel Providence, South Sydenham .....	10	2 1/2	2 1/2
4000	Wheel Russell (copper), Tavistock .....	10	1 1/2	1 1/2

## EAST CORNWALL DISTRICT.

1000	Appledore (silver-lead and cop.), St. Ives .....	10	2 1/2	3
3450	Bawden (silver-lead) .....	10	4 1/2	4 1/2
250	Berriford (copper), Liskeard .....	10	3 1/2	3 1/2
1000	Bodmin Consols (lead), Wadebridge .....	10	5	5
5000	Bodmin Moor Consols (tin and copper) .....	10	4 1/2	4 1/2
1000	Bodmin Wheel Mary (copper) .....	10	11	11 1/2
407	Budnick Consols (tin), Perranzabuloe .....	10	9	9
812	Butterton (lead), Menheniot .....	10	6	6 1/2
1000	Callington (lead and copper), Callington .....	10	7 1/2	6 1/2
1000	Calstock United (copper) .....	10	8 1/2	8 1/2
1000	Cambridge Consols (copper), Camborne .....	10	8	8
1168	Caradon Vale Cons. (cop.), Linkinhorne .....	10	3	3
1536	Caradon Great Cons. (cop. & lead), St. Ives .....	10	1 1/2	1 1/2
1000	Caru Brea (copper and tin), Illogan .....	10	125 127	125 127
3000	Carton Consols (cop. & lead), Wadebridge .....	10	7	7
1000	Carvannall (copper), Gwennap .....	10	5	5
2000	Cassandra Anne (lead & cop.), Stoke Clim. .....	10	12	12
250	Chyprase, St. Enoder, Cornwall .....	10	25 30	25 30
800	Comblawn (lead), Callington .....	10	75 80 70	70 75
128	Comfort (copper), Gwennap .....	10	110	110 112
250	Coudurrow (copper and tin), Camborne .....	10	7 1/2	7 1/2
1000	Copper Bottom (copper), Crowan .....	10	7	7
211	Cradock Moor (copper), St. Cleer .....	10	31	34
250	Crane and Belawa (copper), Camborne .....	10	18 20	17
180	Dolcoath (copper and tin), Camborne .....	10	4 1/2	4 1/2
2500	Drake Walls (tin and copper), Calstock .....	10	2	2
1536	Duke of Cornwall (copper), St. Winnow .....	10	20	20
1000	East Basset (copper) Redruth .....	10	3	3
1000	East Brier (copper), near Redruth .....	10	3	3
1000	East Caru Brea (copper), Redruth .....	10	3	3
1000	East Polgoth (tin) .....	10	5	5
128	East Pool (tin and copper), Pool, Illogan .....	10	155	155
276	East Serton and Wheel Maude, Redruth .....	10	2 1/2	2 1/2
1000	East Sharp Tor (copper) .....	10	8	8
250	East Targ (copper), Redruth .....	10	14 16	13
1000	East Trevelick (tin), Lanivet, near Bodmin .....	10	2 1/2	2 1/2
250	East Tywarhaye (copper), St. Agnes .....	10	150 160	150 160
94	East Wheel Croft (copper), Illogan .....	10	3	3
250	East Wheel George (copper), Illogan .....	10	15 17 1/2	17
512	East Wheel Lelaure (copper) .....	10	10	10
250	East Wheel Rashleigh, Looe .....	10	550	550
128	East Wheel Rose (silver-lead), Newlyn .....	10	30	30
494	Fowey Consols (copper), Tywardreath .....	10	45	45
2500	Garras (silver-lead), near Truro .....	10	45	45
250	Gonamens (copper), St. Cleer .....	10	44 47	47
243	Graham and St. Aubyn (copper) .....	10	250	250
96	Great Consols (copper), Gwennap .....	10	2 1/2	2 1/2
1000	Great Polgoth (tin), St. Austell .....	10	2 1/2	2 1/2
1000	Great Siron Consols (tin and copper) .....	10	10	10
5000	Great Wheel Martha (cop.), Stoke Clim. .....	10	1	1
3072	Great Wheel Mitchell Cons. (cop.), Lanivet .....	10	5	5
1000	Gustavus Mines (copper), Camborne .....	10	6 1/2	5 1/2
512	Gu. Wh. Rough Tor Con. (cop.), Camelford .....	10	20	20
1000	Hawkmor (cop.), Calstock, Gunn's Lake .....	10	8	8
6000	Holington Down Con. (copper), Calstock .....	10	2 1/2	2 1/2
512	Holmboe (lead), near Liskeard .....	10	14 14 1/2	14 15 1/2
1000	Holmboe (lead and copper), Callington .....	10	23 24	22 23 1/2
250	Lanarth (tin and copper), Gwennap .....	10	8	8
6000	Marke Valley (copper), Caradon .....	10	3 1/2	3 1/2
250	Mineral Court (tin), near St. Austell .....	10	50	15
1000	Moditham & Marrabro (copper & lead) .....	10	2 1/2	3
320	Nansogor (tin and copper), Camborne .....	10	3	3
1000	North Buller (copper), Redruth .....	10	13 14	13 14
250	North Fowey Consols .....	10	25	25
100	North Pool (copper and tin), Pool .....	10	500 510	500 510
140	North Roscar (copper), Camborne .....	10	160	160
250	North Targ (copper), Redruth .....	10	18	17 1/2
250	North Trevelick (tin and copper), Redruth .....	10	1	1
6000	North Wheel Basset (copper and tin) .....	10	12 15	12 15
1200	North Wh. Buller, or St. South Tolgus .....	10	14	14
262	North Wheel Lelaure, Perranzabuloe .....	10	1 1/2	1 1/2
1000	Okel Tor (lead) .....	10	4 1/2	4 1/2
128	Par Consols (copper), St. Blazey .....	10	650	650
1000	Pendarves Consols (copper), Camborne .....	10	10 12	10 12
2048	Pentire Glass (silver-lead), St. Minver .....	10	8	8
1160	Perran St. George (copper and tin) .....	10	45	45
200	Phoenix (copper and tin), Linkinhorne .....	10	240	240
1000	Polberro (tin), St. Agnes .....	10	15	15
2000	Polgear (copper and tin) .....	10	5 1/2	5 1/2
5000	Rocka and Trevelick (tin), St. Austell .....	10	115 116	119
250	South Caradon (copper), St. Cleer .....	10	8	8
2000	South Caru Brea (copper), Illogan .....	10	8	8
1100	South Dolcoath (copper), Illogan .....	10	150 155	158 160
250	South Targ (copper), Redruth .....	10	1 1/2	1 1/2
250	South Wheel Basset (copper), Illogan .....	10	373 400	400
248	South Wheel George (copper), Illogan .....	10	302 305	297 1/2
250	South Wheel Josiah (copper), Calstock .....	10	3	3
999	St. Minver Consols (silver-lead) .....	10	6	6
1000	Stray Park and Camborne Vein (copper) .....	10	15 16	15 16
5000	Tuckford (copper and tin), near Pool .....	10	7 1/2	6 1/2
128	Tockbury (copper), St. Ives, Liskeard .....	10	7	7
1900	Tolcarne (tin and copper), Camborne .....	10	8	8
1900	Trevelick Consols (tin and copper), Lanivet .....	10	14 1/2	14 1/2
250	Trevelick (silver-lead), Wadebridge .....	10	7	7
250	Trevelick (silver-lead), Menheniot .....	10	13	13
8000	Trevelick Consols (copper), Redruth .....	10	2 1/2	2 1/2
1000	Trevelick (copper), Liskeard .....	10	1 1/2	1 1/2
2000	Trevelick (copper), Helston .....	10	210 230	228
96	Trevelick (copper), Gwennap .....	10	20 21	20 21
120	Trevelick (copper), Gwennap .....	10	6 1/2	6 1/2
512	Trevelick (lead), Lanivet .....	10	9	9
120	Trevelick and Basset (copper) .....	10	215 235 240	200 210 225
500	Tywarhaye (cop.), Illogan & St. Agnes .....	10	30 40	30 40
5000	United Mines (copper), Gwennap .....	10	100	100
5000	Warleggan Consols (copper) .....	10	1 1/2	1 1/2
500	West Basset .....	10	110	110
128	West Buller (copper), Redruth .....	10	115 130	117 1/2
250	West Fowey (copper), Liskeard .....	10	60	60
1800	West Par Consols (tin & cop.), St. Blazey .....	10	11	11
1000	West Phoenix, Linkinhorne .....	10	4	4

Shares.	EAST CORNWALL—Continued.	Paid.	Last Price.	Present Price.
2500	West Polgoth (tin), St. Ewe & St. Mewan .....	10	3	3
200	West Serton (copper), Camborne .....	10	123	123
3000	West Shepherd (silver-lead and copper) .....	10	2 1/2	2 1/2
940	West Tolgus (copper), Illogan .....	10	15 1/2	15 1/2
1900	West Wheel George (copper), Gwennap .....	10	20	20
512	West Wheel Francis (copper), Illogan .....	10	21 23	22 23
2725	West Wheel Jewel (tin and copper) .....	10	12	12
2048	West Wheel Rose (lead), Newlyn .....	10	3	3
500	West Wheel Towan (copper), Illogan .....	10	15 17 1/2	15
300	Wheel Arthur (lead), near East Wh. Rose .....	10	17	49
1000	Wheel Agra (copper), Illogan .....	10	6 1/2	5 1/2
3000	Wheel Dora (tin and copper), St. Cleer .....	10	3	4 1/2
182	Wheel Elizabeth (copper), Redruth .....	10	19	18
182	Wheel Eon's (lead), St. Erme .....	10	12	20
100	Wheel Friendly (tin), St. Agnes .....	10	70	65
4000	Wheel Golden (lead), Perranzabuloe .....	10	2	5 1/2
2500	Wheel Harriet (copper), Camborne .....	10	1 1/2	1 1/2
216	Wheel Henry (copper), Koa, near Truro .....	10	25	8
6000	Wheel Langford (copper and silver-lead) .....	10	1	3
1000	Wheel Mary (silver-lead and copper) .....	10	2 1/2	2 1/2
990	Wheel Mary (copper), Redruth .....	10	15 1/2	7 1/2
512	Wheel Mary Ann (lead), Menheniot .....	10	5 1/2	61
3000	Wheel Penhale (lead and copper) .....	10	15 1/2	38 39
128	Wheel Penhale (copper), Redruth .....	10	15 1/2	38 39
128	Wheel Pollard (copper), St. Cleer .....	10	15 1/2	38 39
250	Wheel Prudence (copper), St. Agnes .....	10	2 1/2	5 1/2
198	Wheel Serton (tin and copper), Camborne .....	10	107	210
512	Wheel Sophia (silver-lead), Lantivet .....	10	7	7
2000	Wheel Tom (tin & cop.), Stoke Clim. .....	10	5	9 1/2
512	Wheel Trevelick (copper), Gwennap .....	10	7 1/2	18 19
1000	Wheel Tremar (copper), St. Cleer .....	10	1 1/2	1 1/2
4224	Wheel Tremar (silver-lead), St. Kew .....	10	1 1/2	1 1/2
3300	Wheel Trevelick (tin), Lanivet, Bodmin .....	10	1 1/2	52 55
520	Wheel Trevelick (silver-lead), Liskeard .....	10	3 1/2	52 55
250	Wheel Trevelick (copper), St. Ervan .....	10	11	24
257	Wheel Trevelick (tin and copper) .....	10	40	18 1/2
126	Wheel Union (copper), Redruth .....	10	40	45 50
1000	Wheel Vento (tin and copper) .....	10	2	5 1/2
1000	Wheel Vincent (tin), Alternum .....	10	7 1/2	7 1/2
128	Wheel Violet (tin and cop.), St. Stephens .....	10	5	3
128	Wheel Viover, Perranzabuloe .....	10	3	5

## WEST CORNWALL DISTRICT.

120	Alfred Consols (copper), Hayle .....	3	15 1/2	16 1/2	17	18	19
1624	Bailowalden (tin), St. Austell .....	9	10 1/2	10 1/2			
540	Balmcon Consols (tin), Uny Lelant .....	—	4 1/2	4 1/2			
40	Bolowall and Nanpean (tin), St. Austell .....	—	20	20			
128	Boscon (tin), St. Austell .....	10	18	20			
600	Boscon (tin), St. Austell .....	10	5	5			
100	Botallack (tin and copper), St. Austell .....	182	215	220			
1000	Carbona (tin and copper), Crowan .....	5	12	8			
2510	Cook's Kitchen (copper and tin), Illogan .....	15 1/2	15 1/2	8 1/2			
128	Drift Moor (tin), Saneered .....	1	1	1			
1024	East Ballewalden (tin), Saneered .....	1 1/2	2 1/2	2 1/2			
256	East Godolphin (copper), Crowan .....	17 1/2	21	21			
1000	East Wheal Reeth .....	2 1/2	1 1/2	1 1/2			
1024	East Wheal Margaret (tin and copper) .....	3	1 1/2	1 1/2			
2530	Georgia Consols (tin), St. Ives's .....	3 1/2	3 1/2	3 1/2			
100	Great Wheal Alfred (tin), Saneered .....	3	3 1/2	3 1/2			
512	Great Wheal Badden (tin and silver-lead) .....	20	85	8			
1024	Hawke's Point (copper), Uny Lelant .....	7	3 1/2	3 1/2			
1024	La Min (Gwinear), tin and copper .....	2 1/2	5	5			
256	Lelant Consols (tin), Uny Lelant .....	57	22	20			
160	Levant (copper and tin), St. Austell .....	—	175	175			
1000	Lewis (tin and copper), St. Erth .....	17	21 1/2	22 1/2			
1024	Mill Pool (tin and copper), St. Hilary .....	1	5	5			
2000	Northern Levant (tin and copper), St. Austell .....	5	3	3			
1024	Penryn and Boscawen (tin), Saneered .....	1 1/2	3 1/2	4			
100	Prad Consols, Towedneck .....	1	1	1			
560	Providence Mines (tin), Uny Lelant .....	20 1/2	30	30			
1024	Sidney Godolphin (copper), Breage .....	2 1/2	1 1/2	2			
300	South Speed (copper and tin), Uny Lelant .....	15	30	30			
1024	Spearne Consols (tin), St. Austell .....	1 1/2	11 1/2	12 1/2			
1024	St. Aubyn and Grylls (copper and tin) .....	2 1/2	4	4			
94	St. Ives Consols (tin), St. Ives's .....	80	80	80			
200	Spearne Moor (copper), St. Austell .....	30	40	40			
2000	Trannack and Boscawen (tin), St. Erth .....	1 1/2	5 1/2	6			
1024	Trannack, Perranuthnoe .....	1 1/2	5 1/2	6			
512	Trebarvah, Perranuthnoe .....	1	5	5			
600	Treloy Consols (tin), St. Ives's .....	4	8 1/2	8 1/2			
600	Trowan Consols (tin), Towedneck .....	7	—	—			
100	Trumpet Consols (tin), near Helston .....	95	80	90			
1000	Tyllwyd (lead), Cardiganshire .....	2	2 1/2	2 1/2			
1024	Wellington (copper & tin), Perranuthnoe .....	6 1/2	14 1/2	15			
1024	West Alfred Consols .....	5 1/2	24	25			
1024	West Ding-dog (tin), St. Erth .....	1	3	3			
1024	West Dore (tin), St. Erth .....	10	77 1/2	80			
1024	West Wheal Treasury (copper), Gwinear .....	8	7 1/2	8			
1024	West Wheal Virgin (tin), Saneered .....	1 1/2	24 1/2	24 1/2			
256	Wheal Albert (copper) .....	10	28	29			
1024	Wheal Augusta (tin), St. Austell .....	1	24 1/2	24 1/2			
120	Wheal Bal (tin), St. Austell .....	10	26	26			
256	Wheal Carpenter (tin), Gwinear .....	1 1/2	2	2			
1000	Wheal Gasken (tin and copper), St. Hilary .....	4	1 1/2	1 1/2			
1000	Wheal Gernoe (tin), Gwinear .....	12	12	12			
1024	Wheal Margaret (tin), Uny Lelant .....	79	170	170			
1024	Wheal Neptune (copper), Perranuthnoe .....	1	1 1/2	1 1/2			
1000	Wheal Oak, near Helston .....	14	1 1/2	1 1/2			
40	Wheal Owles, St. Austell .....	—	200	200			
1024	Wheal Reeth (tin), Uny Lelant .....	20 1/2	105	105			
1024	Wheal Squire (copper), St. Erth .....	14	1 1/2	1 1/2			
1000	Wheal Susan, Breage and Crowan .....	1	2 1/2	2 1/2			
1024	Wheal Tremayne (tin and cop.), Gwinear .....	9 1/2	20 1/2	20 1/2			
1024	Wheal Treisbach, Stythians .....	5	5 1/2	5 1/2			
WALES.							
248	Allt-y-Crib (silver-lead), Tal-y-bont .....	5	10	10			
500	Aliceston (silver-lead), Glamorganshire .....	24	10	10			
1000	Blancourt (iron) .....	50	10	10			
1000	British Iron, New, regis. (iron) .....	12	8	8			
—	Ditto ditto, scrip .....	10	10	10			
1000	Bronfloyd (lead) .....	—	4	4			
1000	Bryn-Arian (lead), Cardiganshire .....	2	2 1/2	2 1/2			
1000	Bryntali, Llanidloes, Montgomeryshire .....	2 1/2	17	17			
1000	Bwlch Consols (silver-lead), Cardiganshire .....	4	4 1/2	4 1/2			
1000	Cae-Gwynn (silver-lead), Cardiganshire .....	4	4 1/2	4 1/2			
1000	Cae-Gwynn (iron), Sten Cow, Swanes .....	10	2	2			
1000	Cefn Brwno (lead), Cardiganshire .....	6	55	55			
1000	Cefn Gwynn (silver-lead), Cardigan .....	2	24 1/2	24 1/2			
1000	Court Grange (silver-lead), Cardiganshire .....	10	12	12			
1000	Craig-y-Mwyn (lead), Llanfihladr, Mont. .....	8 1/2	10 1/2	10 1/2			
1000	Cwm Daren .....	1	3	3			
1000	Cwm Erlin (lead), Cardiganshire .....	6	5	6			
1000	Cwm Sebon .....	—	4	4			
1028	Cwmystwyl (lead), Cardiganshire .....	60	105	105			
1000	Dalchirion (copper and lead) .....	2	10	10			
1000	Daron (silver-lead), Cardiganshire .....	2	7	7			
1000	Dyffwngwm (lead) .....	10	11 1/2	12			
1000	East Daren (lead), Cardiganshire .....	17	60	62 1/2			
1024	Esgair Lleu Llanfihangel-y-Croethin .....	4 1/2	5 1/2	6			
1024	Freidd Llwydd Mines (lead) .....	1 1/2	3 1/2	3 1/2			
1000	Gall-rol (lead), Flint .....	—	2	2			
1000	Gellir-vel-in (silver-lead), Cardiganshire .....	1	5	5			
1000	Goginan (lead), Cardiganshire .....	40	200	200			
1000	Graig-y-Croethin (silver-lead), Merioneth .....	8	24	24			
1000	Lisburne (lead), Cardiganshire .....	75	720	720			
1000	Llwynnmales (lead), Cardiganshire .....	50	8	8			
1000	Llynal-Iron (iron) .....	9 1/2	80	80			
1000	Merilyn (lead), Flint .....	2 1/2	4 1/2	4 1/2			
1024	Montgomery (lead and copper) .....	7	11 1/2	11 1/2			
1000	Nanteos (lead), Cardiganshire .....	34	30	30			
1000	Nant-y-Car (copper), near Rhayader .....	—	5 1/2	5 1/2			
1034	Fennant and Craigwyn (lead) .....	3	3	3			
1000	Fennant .....	4	4 1/2	4 1/2			
1000	Pon-y-bank and Erglodd (lead) .....	4	6 1/2	6 1/2			
1000	Rhoswylidron and Bacheildron (lead) .....	10 1/2	—	—			
1000	Rhymney Iron (Iron), Rhymney .....	50	12	12			
1000	Ditto New .....	7	3	3			
1048	Snowdon (copper), Carnarvonshire .....	3	—	—			
1000	South Wales Mining Company (lead) .....	1	1	1			
1000	Tyn-y-Worgold (slate), near Carnarvon .....	4	4	4			
1000	West Goginan (silver-lead), Cardiganshire .....	1 1/2	3 1/2	3 1/2			
1020	West Nantymwyn .....	—	2	2			
MISCELLANEOUS.							
1000	Barristown (lead), Carrick .....	5 1/2	—	—			
1000	Black Burn, Alston, Cumberland .....	15	100	100			
1000	Cally (copper and lead), Kirkcudbrightsh. .....	1	1 1/2	1 1/2			
1024	Carr Galver .....	—	4 1/2	4 1/2			
1000	Black Craig (lead), Kirkcudbrightshire .....	5	5	5			
1000	Derwent (silver-lead), Darham .....	10	3	3			
1000	Diurode (copper) Ireland .....	2	5	5			
1000	General Mining Co. for Ireland (copper) .....	1 1/2	5 1/2	5 1/2			
1000	Heirellin Mining Company, Westmoreland .....	18	25	25			
1000	Hibernian (copper) Ireland .....	12 1/2	16	16			
1000	Kewick (lead), Portlincase, near Kewick .....	11	2 1/2	2 1/2			
1000	Kirkcudbrightshire (lead), Kirkcud. .....	9 1/2	5 1/2	5 1/2			
1000	Low's Patent Copper Company .....	7	10	10			
1000	Mendip Hills (lead), near Bristol .....	3 1/2	2 1/2	2 1/2			
1000	Mining Co. of Ireland (copper, &c.) .....	7	4 1/2	4 1/2			
1000	South of Scotland .....	—	1	1			
1000	Trenault (lime quarries) .....	2 1/2	—	—			
1000	Weston (1924), Chertbury, Shropshire .....	—	—	—			
1000	Wicklow (copper), Wicklow .....	5	19	19			
FOREIGN MINES.							
1000	Altan Mining Company (copper), Norway .....	14 1/2	3	3			
1000	Annaboe Bay Mining Association (copper), Jamaica .....	1	5 1/2	5 1/2			
1000	Asiatic Mining Co. (iron, &c.), Spain .....	15	—	—			
1000	Australian (copper), South Australia .....	4	2 1/2	2 1/2			
1000	Barossa Range (copper), South Australia .....	18	18	18			
1000	Brazilian Imperial gold, Brazil .....	23	4 1/2	5 1/2			
1000	Cobre Copper Company (copper), Cuba .....	40	37 1/2	37 1/2			
1000	Copiapu Mining Company (copper), Chili .....	14	6 1/2	6 1/2			